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Their ideas are sometimes out on the fringe, the ragged edge. They have to be, because they're open to the possibilities and realities that change the world.

Some see them as a fish out of water, trouble makers and oddballs. We see them as gifted, profound and uniquely brilliant.



HIGHTIMES JANUARY



Full-out legalization is on everyone's mind, and the sprawling grow ops now operating locally reflect the dreams of the industry.

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As most pot smokers who love working out know, there's nothing wrong with enjoying a toke before going on a run or hitting the gym. In fact, the effects are now being recognized by science as beneficial. We take a look at pot's physiological benefits to athletes and the new fitness enterprises serving stoners. By Mark Miller

58 Portland's Pot Paradise

Take a private tour of Pistil Point Farms in Portland. Oregon-one of the largest indoor grows in the Pacific Northwest, which produces massive quantities of cannabis without skimping on purity or perfection. By Danny Danko.

69 Special Delivery

Meet the real-life cannabis couple behind ${\it High}$ Maintenance, the new hit HBO series about a New York City weed-delivery guy and life in the Baked Apple. By David Bienenstock

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Four prominent production operations in Las Vegas offer us a look at their massive ganja grow ops. Vegas is going green! By Dan Skye

89 Vitamin THC

An emerging consensus supports the idea that cannabis is a human dietary essential. Find out how to combine it with other superfoods for maximum wellness. By Elise McDonough

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Tom Wolfe's seminal book, The Electric Kool-Aid Acid Test, will receive the deluxe collectors' edition treatment. By Samantha Nicholas

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She's America's iconic "blonde bombshell." Now Pamela Anderson sits down to talk to HT about the issues that matter to her. By Dan Skye

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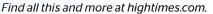
HIGH TIMES COM

On Instagram

Even the most ardent indoor cultivators will be tempted to scrap their "screen of green," heave their high-intensity discharge lights and head outdoors after seeing this photo. California's own @victorypharms_ brilliantly captures nature's grow light glowing behind this gorgeous, allorganic plant, grown to perfection in the Santa Cruz Mountains. Is there any doubt that the Sour OG Kush pictured here would produce a happy high?









• Glass Artist of the Month: Danny Camp For Danny Camp, life was once a 40-hour-a-week grind in the New York City borough of Queens. But that all changed when he moved to Maine in 2010. Camp arrived in Portland—a hotspot for glassblowers—and was welcomed by a community of artists and local business owners.

Danny is a significant member of that community now. He works with a host of top glass artists—Purdy, Beak and Pauly T, among others—who collaborate to enhance Portland's reputation as a hub of the glassblowing industry. He also owns the Ballout Shelter, New England's top collective studio.

Danny has created everything from birds to lobster buoys (a Maine favorite) and is now winning recognition at the national level. Last spring, he received the Emerging Artist Award at the CHAMPS Trade Show in Atlantic City, NJ. In the years to come, you can bet that the number of Camp followers will only increase! *Check out Danny's work at hightimes.com.*

Smoking Poll

Athletes the world over have made cannabis a staple of their training, finding that the herb's healing properties aid in recovery after a game or workout. However, thanks to its neuro-protective potential, marijuana also offers hope to those at risk for traumatic brain injury or chronic traumatic encephalopathy. Many competitive athletes are firmly convinced that cannabis helps to improve their endurance and overall performance. With so many athletes embracing pot despite its continued outlaw status in most sports, we decided to ask: Which welltoned toker is your favorite?

While our intention was to select a pothead jock from as many sports as possible, it was difficult to settle on a single NBA player, since it seems the entire league puffs. So we made "The Entire NBA" an option, and it won first place with 26 percent of the vote! The most decorated Olympian in history, Michael Phelps, finished a close second with 25 percent of the total, followed by MMA fighter Nick Diaz, who received 17 percent of the vote. Former NFL running back Ricky Williams and legendary bodybuilder Arnold Schwarzenegger each took 11 percent to tie for fourth place, while former pitcher Bill "Spaceman" Lee finished last with just 3 percent.

Take our latest poll online at hightimes.com!



Which Toned Toker is Your Favorite Athlete?

A.	Ricky Williams, NFL	11%
9 × 8	Nick Diaz, MMA	17%
	Michael Pholps, Swimmer	25%
have	Arnold Schwarzenegger, Bodybuilder	11%
1	Bill Lee, MLB	3%
-	Rob Van Dam, WWE	6%
	The Entire NBA	26%



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Tweet your best high observations and comments our way @HIGH_TIMES_Mag for a chance to be featured on this page! And be sure to follow us on Facebook (Facebook/HIGHTIMES-Mag) and Instagram (@hightimesmagazine) for all the latest news as it's happening!

@Maddox_89: @HIGH_TIMES_ Mag weed = gate way to eating all your food. Lol

@happytobehigh: @HIGH_ TIMES_Mag Man I would love to blaze with @Sethrogen

@jetmann67: @HIGH_TIMES_ Mag @sinsemedia get rid of the phrase pothead!

@davidclark6563: @HIGH_ TIMES_Mag If any person dumps another over #medicine let them go!! Never underestimate the power of #propaganda!!

@Glans_Schwanson: @HIGH_ TIMES_Mag I've been smoking for 40 years and counting. I can't wait for total legalization!

@Cannabis_Cane: @HIGH_ TIMES_Mag People, the @ DEAHQ and @US_FDA are protecting big pharma's drug run. 1 option: buy their drugs or get locked up

@TwitchyBlaze: @HIGH_TIMES_ Mag Hello! My name is Shane, I have Tourette Syndrome and been blazing for almost 10 years, it helps my Tourette Syndrome 95%!

@ArtofSaraHolt: @HIGH_TIMES_ Mag Enough already... we're not children. We can regulate ourselves. Better for all if we can go to a safe store.

@sleepwhileawake: Smoke a bong and get along. #haha #poem #PSA @HIGH_TIMES_ Mag

@HoldUpSwoldUp: @HIGH_ TIMES_Mag @vibethriller sick and tired of anxiety pills but in TX... what would we do without them...

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12 Editor's Letter



Pot & Fitness

Before arriving at *High Times*, I was a fitness-industry professional. I staffed and supervised exercise programs and taught literally thousands of classes—high- and low-impact aerobics, step classes and callisthenic workouts.

Guess what? I was high for 99 percent of them. Cannabis never affected my cardiovascular function. As long as I ate and slept properly and allowed time for recovery, cannabis was part of my super-fit lifestyle.

I've long been a believer that cannabis use actually enhances your level of fitness. The fact is, I know hundreds of people who wouldn't go for a run without toking up, and just as many who welcome cannabis as part of a workout with weights: Their awareness of what muscle groups are at work becomes much more focused. The same goes for yoga enthusiasts, where cannabis seems to generate a melding of mind and body.

In this issue, we take a look at the physiological benefits that pot offers to athletes and investigate what role edibles can play. Is cannabis really a "superfood"? *HT* edibles editor Elise McDonough talks to infused-food professionals about how cannabis can fuel a healthy, vital lifestyle. So if you're making resolutions to get yourself in the best possible shape for the coming year, this is the issue to read!

Also in this issue, we take a look at the booming business of bud in Las Vegas. And we travel to Chile to see how the Southern Hemisphere is handling the cultivation game. Plus we visit the brains behind *High Maintenance*, the hit HBO series that chronicles the adventures of a weed-delivery dude in New York City. Meanwhile, longtime "blonde bombshell" Pam Anderson visits with us as the subject of our feature interview.

So toke up, get some exercise, and start the New Year high and fit!

Dan Skye

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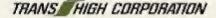
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14 Letters

Ganja on the Gridiron

Nathan Jackson's article and Dan Skye's interviews with former National Football League players ("Pot & the NFL," Nov. 2016) should give NFL team owners and coaches cause for concern. Players give the utmost of their bodies to win. The team doctors give them strong medicines to mask any pain, regardless of how it may affect players' livers or kidneys, and when players' careers are over, they are left to their own devices to sink or swim. The NFL shouldn't be afraid of a controlled study for how cannabis might help with CTE (Chronic Traumatic Encephalopathy) and pain management, but they are petrified. They don't want to acknowledge how extensive the problem is. The athletes interviewed were articulate, and they are completely justified to doubt the NFL's commitment to players' safety and well-being. We can hope that something good comes from this article.

> Stephen L. Chase Port Hadlock, WA

Just after this issue was released, NFL Commissioner Roger Goodell announced an initiative intended to increase the safety of the game, specifically by preventing, diagnosing and treating head injuries. As part of the initiative, the league and its 32 club owners will provide \$100 million in support of engineering advancements and medical research—in addition to the \$100 million previously pledged by the league to medical and neuroscience research.

Commerce & Cannabis

What's the deal with edible e-commerce? Is it legal only in the state if cannabis is legalized or can a young entrepreneur like myself get her edible business going via e-commerce? I'm asking about resources for more product manufacturing.

Lola

Edibles editor Elise McDonough responds: Cannabis-infused foods are just as federally illegal as cannabis, so any interstate commerce of these items is currently prohibited. It's even illegal to send cannabis products through the mail within states where it's been legalized. because the US Post Office is still a federal entity. Cops can also charge people based on the weight of edibles, making these foodstuffs potentially riskier to travel with. Beware of any hemp-derived CBD companies that claim they can legally ship to all 50 states; all cannabinoids, including non-psychoactive CBD, are prohibited by federal law. While it's OK to ship hemp, these products usually don't contain enough CBD to be therapeutically active.



Athletes interviewed were articulate, and they are completely justified to doubt the NFL's commitment to players' safety and well-being. We can hope that something good comes from this article.

The Nose Knows

In "The Best-Tasting Strains on Earth" (March '16), you mentioned some strong-smelling strains. I've grown Durban Poison many times, and while it does have a great flavor profile, I have some Berry and Trainwreck crosses where you wouldn't even be able to smell the Durban if I brought them into the room. Unless you're looking for a specific profile, there are much strongersmelling strains out there. Blackberry Kush and Marion Berry Kush are both stronger-smelling. A good phenotype of Purple Trainwreck, Lemon Trainwreck or traditional Trainwreck will give off far more odor. A good Blue Cheese has an uncontrollable smell. I still grow Durban, but maybe you should look at different strains and do more testing.

Getting a flavor to its full profile has a little to do with water-stressing the plant in the last couple of weeks. With any herb, you can get maximum fragrance via water stress. That means watering only right before the leaves droop. The plant is Send your letters to Feedback c/o High Times, 250 West 57th St., Suite 920, New York, NY 10107 Email: hteditor@ hightimes.com

converting proteins to sugars and running low on water, so that gives it a little extra.

Harvesting outside in the morning after the dew will also help strengthen the smell. Two more strain families you might want to test are Bubblegum and Skunk (for example, Bog Sour Bubble x 3 or Island Sweet Skunk). There are many Hindu Kush-region derivatives. Yumbolt, which used to be called "Humboldt" or "The Bolt," is another strong profile. Some other suggestions are Cantaloupe, Grapefruit, Sour Diesel, Chem Dog—the list goes on and on.

Ben S.

Edwin Rubis: 40 Years for Pot

I am writing to bring awareness to an issue that I believe most people in this country don't know about. When you think of someone getting a life sentence, you think, "Surely there must be a dead body somewhere." But no—the mandatory minimum sentences handed down in the 1990s ensured that many nonviolent marijuana offenders went to prison for a long, long time. One such person is Edwin Rubis. In 1998, at the age of 29, Edwin was convicted

of conspiracy to possess and distribute marijuana. On the testimony of the other people involved in the delivery chain—11 of whom are now free—he was sentenced to 40 years behind bars. He will be 62 when he gets out.

His petition for clemency to President Obama was recently denied, even though many of the people currently receiving executive clemency have committed far worse crimes and served less time. Edwin had filed two previous appeals, both of which were also denied despite the fact that the US Sentencing Commission amended the drug table in 2014, thereby reducing all cases by two levels. Unfortunately, Edwin's case wasn't affected due to "enhancements" imposed by the judge.

Edwin is not alone. Please go to *marijuanaliferproject.org* and read about all the people afflicted by this ongoing injustice, then sign the petition requesting sentence reductions for them.



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January 2017 High Times

ALL BAIDRAL AND CLASSIFIES

4

Current and a state of the stat

AVAABIS GAAS

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ER SENING FOOD

SHOPPING SPREE To celebrate the arrival of cult-favorite web series *High Maintenance* on HBO (see page 69), *High Times* treated the stars and co-creators of the series to a \$420 cannabis shopping spree. Full disclosure: They went a little over! *Photo by David Lee Dailey*. Contact High

mm

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January 2017 High Time

CLONING AT PISTIL POINT Hundreds of cannabis cuttings take root under fluorescent lighting at Pistil Point in Portland, Oregon. Check out Danny Danko's inside look at this massive marijuana production facility on page 58. *Photo by Canna Obscura*.

F

Contact High





January 2017 High Times

ENTER THE MATRIX What is the Matrix? It is the world that has been pulled over your eyes to blind you from the truth. That's what Keanu Reeves is told in the movie *The Matrix*. (Doesn't the Matrix sound like anti-pot propaganda?) We'll be glad to enter The Matrix NV drying room in Las Vegas anytime. Read about this stellar grow op in "4 of a Kind" on p. 76. *Photo by Dan Skye*

Contact High 21

ROTENT CONSISTENT DISCREET



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Entertainment



Style High Style The Balance Pipe is a hot new smoking accessory that's designed not to tip! p.30



Dangerous Toys SoCal stoners Toys That Kill spark up with *HT*. p.34





Save the Seattle Hempfest!

The 25th anniversary of the iconic protestival brought good vibes to the Emerald City, but a combination of forces now threatens the event's future. *By Elise McDonough*

From its humble beginnings back in 1991, when a crowd of just 500 gathered at Gas Works Park to demonstrate their love for cannabis and agitate for its liberation, the Seattle Hempfest has grown into the world's preeminent gathering of the cannabis community, with more than 100,000 heads visiting Myrtle Edwards Park on the third weekend in August. Stretching for a mile and a half along the waterfront, Hempfest includes six stages, over 400 vendor booths and "more freedom than you'll get in Amsterdam," according to founder Vivian McPeak. Walking through the event is an

experience like no other, with a diverse
Gas crowd, colorful characters, and booths
for stocking every type of paraphernalia,
hip clothing, hemp body-care products,
and stoner arts and crafts. The beautiful
ne setting is caressed by breezes from the
nearby Puget Sound, making Hempfest a
s mecca that every cannabis lover should
visit at least once.

Completely run by a volunteer force of at least 1,000 activists spread over 118 crews, the behind-the-scenes organization of the yearly protestival involves coordination with numerous government agencies, including the Port of Seattle, the Parks Department and the Olympic Sculpture Park. And, oh yeah, the Seattle Police Department, of whom Vivian says: "I love them! They respect us because we've pulled it off every year for 25 years, and we could put our arrest, accident or injury statistics against any other big event in the state and hold our own against them... It's a miracle that we've been able to do this!"

But after 25 years, it seems that the local cannabis community is no longer so impressed by this miraculous event. The average donation from a Hempfest participant is only 46 cents, and without

24 Highwitness News

a boost in financial support, the festival will be forced to scale down, eliminating stages and possibly excluding the entire north end of the park.

"I think they take Hempfest for granted," Vivian says of the younger attendees. "If you're 25 years old, Hempfest has been going on for as long as you've been alive... a lot of the young, hip audience doesn't really understand how hard and expensive it all is to pull off."

In a true Catch-22 for Hempfest's organizers and core staff, the festival receives permits only because it's a free-speech event in a public park. This means that Hempfest can't charge the people who attend, because if it morphed into a ticketed commercial event, it wouldn't be granted the necessary permits in the first place.

"If we could get \$10 [per attendee] that's \$3.33 a day—we'd be styling," Vivian says. But without such a surge of support from cannabis lovers, Hempfest will be forced to scale back, and "that means eliminating stages where people have been working for 20 years... That whole crew, it's their community, it's their culture there, and that's going to wound us. But we can only do that for a year or two, until there's nothing else to cut."

Hempfest has drafted a 25-point platform for activists working toward true cannabis freedom, including protections for pediatric cannabis patients, workplace and public-housing protections, and the reform of the organ-donation system.

Beyond the lack of community support, the recent change in cannabis's legal status in Washington State has left many wondering whether a protest movement is still needed. But while the passage of Initiative 502 legalized cannabis possession and sales in 2012, Vivian contends that much work still needs to be done. As a result, Hempfest has drafted a 25-point platform for activists working toward true cannabis freedom, including protections for pediatric cannabis patients, workplace and publichousing protections, and the reform of the organ-donation system, which currently excludes cannabis users from receiving life-saving transplants.

Meanwhile, much of the state's medical marijuana community has been forced back underground by SB 5052, which shut down every medical dispensary that didn't also have an 1-502 retail license.

"Reformers in this state, the medical

marijuana patients, are demoralized, disillusioned, bitter and angry—no doubt about it," Vivian says. "This isn't what we all thought we were working for and fighting for so much."

Along with a complete Friday rainout at the 2015 event that badly hurt its funding, Hempfest has also lost a major presenting sponsor. And changes in the laws surrounding cannabis mean that no 1-502 retail stores can advertise or sell pot products anywhere near a public park. "They can have a booth," Vivian explains, "they can give out information, but they can't talk about their products or their business, or the fact that they sell anything."

But despite the challenges and setbacks, Vivian says he'll never abandon Hempfest, stating defiantly: "So as long as I can walk, I'm not going to walk away." *****

Support Hempfest at hempfest.org.

HIGH FIVE

Truth Be Damned!

Big cannabis lies and the liars who spread them. By Mark Miller



DEA, Denver Division In order to justify its recent gutless refusal to reschedule cannabis, the DEA described legal, large-scale commercial pot gardens in residential neighborhoods as the "new meth houses." Seriously? That's the best you've got? The problem with this analogy is that meth houses are illegal and commercial pot gardens are sanctioned by the state. The worst threats from weed warehouses are "strong odors" and "blown transformers"-none of which are half as scary as current US pot policy.



Carol Jenkins Barnett The billionaire ex-president of the supermarket chain Publix personally donated \$800,000 to fight the medical pot measure in Florida this November with the following statement: "Amendment 2 would usher in an unprecedented era of legalized marijuana in Florida." While it's not clear why this would be a bad thing, we feel the need to point out that. although literally half of the United States has approved medical pot in some form, only four states have legalized recreational weed, with zero being in the South.



The "No on 64" Campaign

Last August, supporters of Proposition 64, California's upcoming legalization initiative, filed a lawsuit in Superior Court to remove the opposition's "grossly false and misleading" statements from the informational guide for the November ballot. Among those named in the suit is US Senator Dianne Feinstein. "No on 64" scare tactics include the claim that it would allow cannabis commercials on television. Sorry, haters, but that's not possible: Federal law bans TV ads for any smoking products.



Randy Philbrick, SAM Oregon

The anti-cannabis group Smart Approaches to Marijuana has always attempted to link pot with violence, but SAM reached a new low in June when state chief Philbrick compared the horrific Pulse nightclub massacre in Orlando, Florida, to Oregon Senator Earl Blumenauer's steadfast support for legal weed. Philbrick tweeted: "You can't support one threat to public health/public safety and then condemn another." Not surprisinaly, Philbrick resigned within a week of his supremely tacky tweet.



Patrick Kennedy, founder of SAM

The nephew of JFK has been heavily engaged in anti-cannabis activities this past summer, donating \$2 million to defeat pro-pot measures and claiming the legalization movement has "exposed children from communities of color to more racial discrimination." How's that again, Pat? Legal weed would mean the end of disproportionate pot arrests for young blacks and Latinos, thereby keeping their records (and their future employment opportunities) untarnished.



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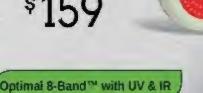
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Big Pharma: Profits Over Patients

While it's generally accepted that Big Pharma's fight against cannabis legalization is motivated by profits, it is rare to have actual proof—and even rarer to have proof in the form of a written admission from a pharmaceutical company. Incredibly, Insys Therapeutics has provided just that, according to a report by *Business Insider*.

Insys, which makes a painkiller called Subsys that is 100 times more powerful than morphine, is currently developing a pharmaceutical product containing dronabinol, a synthetic cannabinoid used to treat the nausea and vomiting caused by chemotherapy. Of course, Insys knows that cannabis is very good at treating nausea and vomiting—so if pot becomes legal, who would need its product? What would happen to the company's bottom line?

With that in mind, Insys donated half a million dollars to the antilegalization organization Arizonans for Responsible Drug Policy, a group dedicated to defeating Proposition 205, which would legalize recreational cannabis in the state. The company even had the gall to tell the press that it opposed legalization because it "fails to protect" the children of Arizona.

Unfortunately for Insys, a filing made to the Securities and Exchange Commission belies its "Please think of the children!" narrative. Here's why Insys really opposes marijuana, in the company's own words:

"Legalization of marijuana or nonsynthetic cannabinoids in the United States could significantly limit the commercial success of any dronabinol product candidate... Literature has been published arguing the benefits of marijuana over dronabinol.

"If marijuana or non-synthetic cannabinoids were legalized in the United States, the market for dronabinol product sales would likely be significantly reduced and our ability to generate revenue and our business prospects would be materially adversely affected."

CANNABIS ON CAMPUS

Inside the Wide World



College students are choosing pot over other narcotics, according to the 2015 edition of the federal "Monitoring the Future" study, conducted by the University of Michigan's Institute for Social Research. The latest poll

found that 38 percent of students used marijuana in the last 12 months. This reflects a decade-long trend of steady or increasing cannabis consumption by those pursuing higher education.

While daily use (defined as consuming cannabis at least 20 times a month) declined slightlyfrom 5.9 percent in 2014 to 4.6 percent in 2015-overall use increased 3.5 percent from 2014. The study also found that only 33 percent of those ages 19 to 22 now regard regular pot use as "dangerous."

Cannabis has apparently filled the void for recreational prescription drugs, which have decreased to a meager 3.3 percent annual use after a peak of 8.8 percent in 2006. Student amphetamine use also decreased slightly, dropping to 9.7 percent.



Charlo Greene Faces Prison

Television reporter turned cannabis advocate Charlo Greene has been charged with multiple felonies and faces decades behind bars for "misconduct involving a controlled substance." The charges stem from her membership-based Alaska Cannabis Club.

Greene was the subject of international attention when she signed off from her final newscast in 2014 with the quip, "Fuck it, I quit." The video clip immediately went viral and Charlo left TV news to devote her time to her Cannabis Club and the legalization effort.

While Alaska legalized recreational cannabis in 2014, lawmakers have largely failed to implement a retail program, making it difficult for Alaskans to acquire cannabis despite its legal status.

Although unlicensed, Greene's club allowed Alaskans to obtain marijuana for membership fees. However, authorities caught wind of the activities and set up undercover operations that led to raids of the club.

Despite operating in a legal cannabis state, Greene—who has pleaded not guilty—faces up to 54 years in prison.



measuring blood-alcohol levels, the potalyzer measures how much THC is in a driver's system by testing their saliva.

Creating such a detection device has proved difficult because THC can remain in the system for weeks, with no deleterious impact on the driver. The Stanford potalyzer utilizes magnetic biosensors to detect tiny concentrations of THC molecules in a person's saliva, which might be more indicative of current pot intoxication.

However, even if the device can accurately detect current intoxication, there is no consensus on the level of THC concentration that actually results in impairment. Colorado, where authorities use devices similar to the potalyzer, set the legal limit for drivers at under five nanograms of THC per milliliter of blood. Other states have yet to legislate a stoned-driving limit.

Spit On This THC Detector

Researchers at Stanford University have created a new marijuana detector they've dubbed the "potalyzer." Like a breathalyzer, the device is intended for use by law enforcement during roadside screenings. However, instead of

A loud, tasty, energizing, heavy-yeilding, 8-week sativa."

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28 Highwitness News



Legal-Pot Patients Banned From Buying Guns

An appeals court upheld the federal ban on gun sales to registered medical cannabis patients. The unanimous decision applies to the nine states under the Ninth Circuit Court of Appeals' jurisdiction. Eight of those states have medical pot programs.

The recent ruling involved a lawsuit brought by a Nevada woman, S. Rowan Wilson, who was denied a firearm in 2011 because she had a medical cannabis card. Federal law forbids selling guns to illegal-drug users, and marijuana remains illegal at the federal level. However, Wilson claims that she isn't a pot smoker, but rather a supporter of the program. Even so, the appeals court ruled it was reasonable to assume that anyone with a medical cannabis card uses marijuana and therefore should be disqualified from purchasing a gun.

Unfortunately, the court didn't stop there, adding that it was also reasonable to assume that using marijuana "raises the risk of irrational or unpredictable behavior with which gun use should not be associated." In addition to being a canard, this reasoning seems rather disingenuous, considering that people who use alcohol can purchase as many guns as they like.

Paul Armentano, deputy director of NORML, weighed in, noting: "Responsible adults who use cannabis in a manner that is compliant with the laws of their states ought to receive the same legal rights and protections as other citizens."

This may not be the last word on the issue of firearm sales to medical pot patients. Wilson's attorney could appeal the decision, potentially taking the case all the way to the Supreme Court. Additionally, according to marijuana-law expert Alex Kreit, a legal medical cannabis patient who actually uses pot could challenge the ruling that it increases violent or irrational behavior.

COPS CAN'T **PROFILE DRIVERS FROM LEGAL-POT** STATES



Motorists from Colorado-along with opponents of police profilingscored a major victory when a federal appeals court ruled that residency in a legal-pot state is not a valid reason to stop and search a vehicle.

In a 2-to-1 decision, the 10th US **Circuit Court of Appeals in Denver** found that two **Kansas Highway** Patrol officers who pulled over and searched a vehicle because of its Colorado plates violated the driver's constitutional rights.

The officers justified the stop and search to the driver, Peter Vasquez, by explaining that Colorado is a known "drug source" because of its legal-cannabis program. But no drugs were found in the vehicle, and Vasquez brought a civil lawsuit against the officers for violating his Fourth Amendment right not to be unreasonably searched.

The appeals court's decision applies to Colorado and neighboring states Kansas, New Mexico, Oklahoma, Utah and Wyoming.



Man's Best Friend Not Teacher's Pet

An unannounced drug sweep at a Texas high school snared a teacher, according to reports, after a drug-sniffing dog named Ace (not pictured above) discovered marijuana in the backpack of Spanish instructor Ana Carrera during a random search of Lanier High School in San Antonio. While Carrera had less than two ounces of pot, she faces a class-A misdemeanor because the cannabis was found in a "drug-free zone."

According to San Antonio Independent School District officials, Carrera had just started teaching at Lanier this year. She resigned from the gig immediately following her arrest.

Officials released a statement expressing their disappointment in Carrera, insisting that the rest of the faculty "serve as positive role models for the students." Of course, one could argue that not subjecting teachers and pupils to constitutionally questionable random searches would be even more "positive" for the student body.

China could be the key to

China's Chemical War

Thanks to a recent ban on certain chemicals in China. the United States is reporting a significant decline in both the deadly designer psycho-stimulant known as "flakka" and unpredictable synthetic-pot products like K2 and Spice.

synthetic drug, similar

sible throughout the US.

Flakka is a dangerous to bath salts, that has been linked to several brutal and bizarre crimes in the US. While the drug has been most prevalent in Florida, the Chinese ban of 115 chemicals known to be used in creating unpredictable synthetics has gone a long way toward eradicating it. Likewise, K2 and Spice are becoming less acces-

The drop in designer drugs is being attributed to increased cooperation between China and America. In fact, DEA officials have spent time in Beijing working with Chinese authorities on combating the problem, as both countries attempt to keep pace with underground chemists modifying formulas to beat the ban and render these substances technically legal.

eliminating dangerous drugs like flakka.



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True Colors

Mary Jane is high-profile right now—and she's a glamour puss. The leafy lady has taken the fashion world by storm and the trend continues to grow. *By Mary Jane Gibson*

Mary Jane Runway is a cannabiscouture company that exemplifies the evolution of sinsemilla style. The beauty of the pot plant is captured in vibrant original prints on fabrics that drape beautifully on all shapes and sizes. Free-flowing kimonos, Swarovski-crystal-adorned capelets, jaunty cocktail dresses, lounge-worthy leggings, cute crop tops and more make up the budding company's debut collection, which launched in April 2016.

Company founder Lisa Goshon tells *High Times* that she wanted to metamorphose America's view of marijuana by designing glamorous clothing featuring the leaf. "If you trace back marijuana's roots in the fashion industry, you probably won't find much in the way of design and style," Goshon says. "Of course, there's the over-thetop T-shirt emblazoned with a Dartmouth-green cannabis leaf, or the ball cap covered with an embroidered token. However, in 2016, business professionals and marijuana connoisseurs are looking for cannabis clothing that's a little more refined."

Goshon partnered with a Japanese artist to create the rich multicolored prints for her first collection, and new prints in more bright hues are forthcoming. Designed for comfort, durability and versatility, Mary Pot-themed prints are poised to make the leap to chic.

Jane Runway's clothing flatters all types: slim, curvy, tall, petite there's something for everyone.

The true colors of Mary Jane shine through in the line, which is cropping up on red carpets and at cocktail parties. "Softening marijuana's reputation by utilizing fashion is like having an extra scoop of ice cream," Goshon revels. "It's that much sweeter." Shop online at *maryjanerunway.com.*

Balancing Act

Designed by Jamie Wolfon of the Brooklyn-based product-design studio Good Things, the Balance Pipe is a striking modern smoking accessory. True to its name, the asymmetrical pipe balances beautifully on an even surface. Crafted from lab-quality borosilicate glass, the pipe doesn't conduct heat, making for a cool, smooth smoke. Currently available in blue and clear glass, the piece features an eye-catchingly designed carb. Tetra, the online smoking-accouterment merchant, has partnered with fashion retailer Opening Ceremony to sell the Balance Pipe at flagship stores in New York and Los Angeles, as well as online at shop-tetra.com.





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32 Entertainment

How I Fell in Love with My First Weed Dealer

Stand-up comedian Esther Ku (*Last Comic Standing*, *@Midnight*, *The Jim Gaffigan Show*) recounts her foray into the wonderful world of weed, which was accelerated by the questionable decision to date her dealer. *By Esther Ku*

It was a set-up. I had just been laid off from my job as a sales rep for a pen company. And while that pen company was the best sugar daddy anyone could ask for, it did a drug test anytime one of its employees got in a car accident. So I purposefully avoided inhaling any marijuana into my precious virgin lungs the whole time I was there. But once I got canned from my cushy pen-sales job, all bets were off. I packed up my Boston apartment and moved to a place in Park Slope, Brooklyn, that I found on Craigslist. I even joined the food co-op there-which sounds spectacular in theory, but in practice was far from it. The other members would ream you out: "If you're late for your shift one more time, Esther, we're going to put your membership on probation." Hey lady, save your spleen for when your artificial-insemination-produced teenagers cuss you out, all right?

Within my first month in New York, I started smoking weed thanks to a childhood friend of mine. I figured, "I went to kindergarten with Paul, I know this guy, so how bad can marijuana be?" And it wasn't bad *at all*—except maybe for poor Paul. I got high in his Bed-Stuy apartment, and I could not have been more annoying: "Whoa. I can't believe I never got high before!" Then, a few days later: "This is awesome! I took a shower vesterday and washed my hair, and because I was baked, I couldn't remember if I shampooed or not, so I washed my hair again. Weed is sooo amazing!"

And so began my journey of getting high... even as my credit score was getting low.



I love weed, he sells weed, and therefore I love him was basically my logic. So before too long, I was reveling in all the behind-the-scenes glory of a weed dealer's life.

I needed to figure something out. One of my roommates was a gangster Korean girl from Guam with hoop earrings, a curvaceous body and a black boyfriend. One day he mentioned that he knew a weed dealer in our neighborhood. *No fucking way... that was exactly what I needed!* So I walked around the corner to Fourth Avenue and went up one flight of stairs to the weed dealer's den. He had long hair, kept smiling at me, and knew everything about weed. I was mesmerized. "He is *so* cool—he lives off the grid and risks his life providing marijuana for the community. I am in awe," my stupid little brain thought.

I love weed, he sells weed, and therefore I love him was

sically my logic. So before o long, I was reveling in all e behind-the-scenes glory a weed dealer's life. I went th him to pick up, I got to all the different kinds of pople who came to buy, and ven made a few deliveries vself—once to an educan professional. "You're a Icher, and you smoke weed? *hoa*!" For some reason, that w my mind, and it also st-forwarded my career as professional stoner. I had catch up quick, since it emed like everybody else en the schoolteachers—had tten a head start in life as vers of weed.

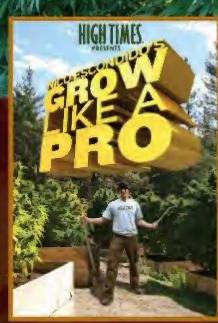
One night, my boyfriend d I were woken up by the und of sirens blaring and ople shouting. We looked **T**t the window, and holy it—the building next door s on fire! We grabbed two ge blue Rubbermaid roughck totes full of weed and mly carried them down the **M**irs and around the corner my apartment-passing o fire trucks and a dozen licemen along the way. www... that was close. I don't ow what started the fire, but if it had been just a few feet closer, we would've gotten all of Park Slope high. Too bad. If we had, maybe-just maybe-my pissy co-workers at the food co-op would have actually started to smile.

A year and a half of adventures later, my awesomely cool weed-dealer boyfriend somehow got me evicted from my apartment. Suddenly, I was back at square one except this time in Queens. But I refused to fall for the next weed dealer I met. Hell, no! These days, the next mistake I date will at least have to know where all the cool skateboarding parks are. ¥

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Congelliere says he can't recall ever writing a song without the aid of weed. "For me, it's totally like a medication to be creative."

Intenced to up to 15 years in rison. In the end, he landed ur years' probation and 100 purs of community service, say nothing of a ridiculous he.

Did this horrendous advenre affect the band's weed take?

"I stopped [smoking] for e rest of the tour," says Dongelliere. "I couldn't smoke r three days when I was in ere, so when I came out, I as like, 'I need some kind of eanse.' But then I got home d was like, 'Fuck that! If I pop smoking pot, they win!"

Congelliere says he can't recall ever writing a song without the aid of weed. "For me, it's totally like a medication to be creative." Unlike Cole and Felix, he doesn't have a medical card, but he admits that "if you [put it] like, 'My soul is damaged, doctor, and I need this song to come out'- then yeah, I definitely need a medical card."

His bandmates roll their eyes. Cole, who likes edibles (and is quite knowledgeable on the subject) reminds Congelliere of the time he let him finish a gummy right before they boarded a plane to Europe. "You nearly jumped off the flight," Cole says.

"I was crying," Congelliere admits comfortably. "Maybe I should have read the label."



Dangerous Toys

You'd never guess that SoCal stalwarts Toys That Kill have been to hell and back, all in the name of weed. By Polly Watson

San Pedro, California's Toys That Kill have been making sparky, sunny pop-punk since 2000-longer, perhaps, than some their younger fans have been alive. Check out their blazing live shows, though, as well as their genuine interest in new music and their enduring commitment to touring, and you'd file 'em under "Just born."

High Times caught up with the band shortly after the release of their fifth and latest full-length, the excellent Sentimental Ward, which, like the majority of their output, is on Recess Records, the highly regarded label that singer/guitarist Todd Congelliere started in his bedroom in 1989. We were thinking the interview would be a walk in the park, but after firing

up a li'l Tangerine Haze on the street, the fact that it was about 800 degrees outside kicked in. So we rolled into a tiny "air-conditioned" practice space, where the band proceeded to rip into a horrifying story about getting busted for possession in Georgia.

"We had just a little bit of weed, and [the cops] had dogs," recalls drummer Jimmy Felix. "I had mushrooms in my backpack with the weed, and it was a felony." The band spent the night in jail, where, according to singer/guitarist Sean Cole, they were issued actual striped prison-wear.

Congelliere, who was separated from his bandmates during booking, describes the situation. "I'm just stuck in a room smaller than this"-he gestures around the

lunchbox-size space-"with all these other guvs who are banging on the window, going, 'Let me talk to somebody!' And I'm like, "You guys are idiots—no one's listening to you. You're just wasting your voice." Then I see a cop a day later... and I'm [banging on the window, screaming], 'АААААААААААААААААА HHH!!!?"

The band was released after a few days, but Felix spent thousands of dollars on plane fare and countless days believing he might be

Are You Up for the Chachi Challenge? When High Times asked Toys That Kill which band member smokes the most weed, every finger pointed to bassist Chachi Ferrara, and shouts of "The Chachi Challenge!" went up. "It's a last-personstanding kind of thing," Ferrara says modestly.

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Doob Tube

As pot legalization spreads and polite society learns to love Mary Jane, the entertainment industry has responded with a variety of new series that explore life in the weed biz. *By David Bienenstock*





John Malkovich will star in Humboldt.





An original 20-episode series for Netflix, Disiointed is billed as a pot-themed workplace comedy starring Oscar and Emmy Award winner Kathy Bates as "a lifelong advocate for legalization who's finally living out her dream as the owner of an LA-area cannabis dispensary." Bates's character is joined by three budtenders, her twentysomething son and a deeply troubled security guard. CBS mainstay Chuck Lorre (The Big Bang Theory, Two and a Half Men, Mike & Molly and Mom) and former Daily Show head writer David Javerbaum will write and produce.

Humboldt

Two-time Oscar nominee John Malkovich is set to star in Humboldt. a crime drama inspired by Emily Brady's bestselling nonfiction book Humboldt: Life on America's Marijuana Frontier. The project, from Sony **TV and Anonymous** Content (True Detective, Mr. Robot), will "explore an insular Northern California community, which for nearly 40 years has existed primarily on the cultivation and sale of weed." Humboldt promises an intimate look at a community that depends for its livelihood on cannabis, and how everything changes for it as legalization looms.



1.0

Margaret Cho will star in *Highland*.

Mary + Jane

Mary + Jane is a potthemed comedy that debuted on MTV in September. Produced by Snoop Dogg, the series stars Scout Durwood and Jessica Rothe as two millennial entrepreneurs running an all-female weed-delivery service in Los Angeles. Mary + Jane provides a lively look at the duo's ups and downs as well as their highs and lows.

Buds

Produced by Adam Scott (*Party Down, Parks and Recreation*) and Naomi Scott, *Buds* is a scripted comedy that revolves around the day-to-day operations of a marijuana dispensary in Denver. It was bought by NBC and originally set for the 2015-16 season, but *Buds* hasn't made it yet to the network's prime-time schedule.

Highland

This Amazon original series, still in development, will star the iconic comedian Margaret Cho as a woman who "after court-ordered rehab gets a chance to start over, but has to move in with her dysfunctional family," who now run a pot dispensary. In real life, Cho already has a strain of her own called the Margaret Cho-G. &

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38 Entertainment



Greats of Wrath Next-gen O.C. rippers channel O.G. hardcore from both coasts.

Living up to both the band's name and the album's title, this record blew the week-past-the-sell-bydate yogurt right outta my hand as I idly clicked through mp3s in hopes of deep-frying my brain enough to deal with editing a Halo novel. Mission accomplished! I'd heard good things about this Orange County, CA, band's demo a few years back but somehow missed it-not sure how, as Fury could open a pit in the nasal-spray aisle of a Ralphs at 8 a.m. Their name's not especially original (having previously been claimed by DC straight-edgers Battery in the '90s, and by numerous thrash/metal bands the world over), nor is their genre-classic '80s East Coast-style hardcore on the cusp of crossover. BUT IT'S SO BRIL-LIANTLY DONE. Fury have looked to the lions of the past and taken it up a notch (no mean feat when you're talking about a type of music whose



Furv Paramount (Triple-B Records)

boundaries are strictly circumscribed, and fiercely monitored by those who care). They've done this through stellar songcraft; passionate, sensitive lyrics (early OC greats Uniform Choice come to mind here, not surprisingly); and, not least, killer production: The guitars are chunky and loud, the drums are cracking and sharp, and everything's where it

should be. Every track on this album is a winner. Opener "Danse," with its shouted chorus of "So it goes," channels pure Revelation Records SXHC (think Judge, Bold) with a triple shot of testosterone; "Damage Is Done" delivers a chugging breakdown that's all the more intense for its brevity. My personal favorites are the heart-opening "The Fury" ("I got this feeling in me"—yeah, me too); "Death Yellows Life and Reason," with its off-kilter breakdowns, blur-fast drums and "Fuck you too" lyrics; and "Novo," whose burning-build intro is overlaid with an almost hair-metal feedback whine-just another genre-shattering touch these guys weren't afraid to provide. Polly Watson

MUSIC RECOMMENDATIONS



King Khan and William S. Burroughs Let Me Hang You (Khannibalism/Ernest Jenning Record Co.)

Near the end of Beat Generation biggie William S. Burroughs's life, he recorded an audio version of parts of his infamous novel Naked Lunch with the aid of avant-jazz heavies. Those unreleased tracks, already wondrously wicked, rear their revelatory heads on



Blonde Redhead Masculin Féminin (Numero Group)



Admiral Si Cloudesley Shovell Keep It Greasy (Rise Above)

BOOK RECOMMENDATIONS



Life & Times of Augustus **Owsley Stanley** III

Robert Greenfield (Thomas Dunne)



An I details mades on Beiding and Wellard The Accidental Life: An Editor's

Notes on Writing and Writers Terry McDonell (Alfred A. Knopf)

Let Me Hang You, wherein Though the borders were more severely etched back in Blonde Redhead's early

years, no arty-rock combo has better smeared the dividing lines between "serious" music and heartrending pop. The group's pursuit of real ideas within their post-post-rock art form is fascinatingly framed in this

Named after a decorated 17th-century English naval officer, Brit power trio Admiral Sir Cloudesley Shovell pound out the kind of heavy '70s hard rock favored by limey greats Status Quo and On Parole-era Motörhead-but with a distinct American twang. Their third album, Keep It Greasy,

experimental-soul punk King Khan, "Negrogothic" creator M Lamar and Australian garage greasers the Frowning Clouds enhance spokenpsych like "Disciplinary Procedure," "The Afterbirth Tycoon" and "Clem Snide the Private Asshole" in a prickling pastiche of degenerate delight. John Payne

box set comprising their first two albums for Smells Like Records (self-titled and La Mia Via Violenta), plus several singles, demos and radio performances that paint the picture of how their initially hardcore- and no-waveinflected sonics presaged the band's bloom into stately swirls of sound. John Payne

sees the band reveling in quirky Groundhogs-style melody, seriously beefy riffs and MC5-inspired raveups while slamming beers, hoovering crank and maybe even smoking some of that reefer we've been hearing about. It's party rock for bikers, hustlers, dopers-and maybe even you. J. Bennett

"There's nothing wrong with Bear that a few billion less brain cells wouldn't cure," Jerry Garcia once said of Owsley. The most legendary of all the '60s LSD chemists, Owsley was dubbed "The Acid King" by the media. This polymath also worked as a sound guru for the Grateful Dead, refining

Terry McDonell has worked the journalism beat as editor and scribe at Rolling Stone, Esquire and Sports Illustrated. Anyone who's sharpened their art and craft in the trenches knows that they never stop learning, and McDonell recounts lessons from the likes of Bill Murray, Kurt

their state-of-the-art sonics. He was so attuned to his equipment (or so high-or maybe both) that he'd talk to his speakers as if they were living entities. He was also an accomplished ballet dancer, metallurgical artist and theoretical scientist. Greenfield is a mesmerizing storyteller. Michael Simmons

Vonnegut and Norman Mailer. (*High Times* readers will enjoy the tale of a golf game on acid with Hunter S. Thompson.) Ultimately, the author reminds us that the ability to compose an e-mail does not a writer make, and that giants used to roam this earth, armed with very large typewriters. Michael Simmons

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The 2016 election represents the tipping point for the legalization of cannabis nationwide.

November 8, 2016, voters in nine states—Arizona, Arkansas, California, Florida, Maine, Massachusetts, Montana, Nevada and North Dakota—will decide whether to legalize either medical marijuana or the recreational use of cannabis by adults.

If the initiatives in all of these states pass, cannabis would be legal in some form in a majority of the country-29 states, plus the District of Columbia (not including 13 more states where CBD laws are in effect)-and the legal cannabis market could grow from an estimated \$7.3 billion in 2016 to a projected \$21 billion in 2020, for a 30 percent compound annual growth rate. Additionally, with key adult-use markets expected to be up and running in the next two years, 2019 would mark the first year in which recreational sales account for a larger share of the market than

medical sales. California's medical cannabis market is the largest in the US, accounting for an estimated 60 percent of the country's total med-pot sales and 47 percent of *all* cannabis sales in 2015 (medical and recreational combined). If California's Adult Use of Marijuana Act (AUMA) passes, creating a regulated framework to sell and tax



California's medical cannabis market is the largest in the US, accounting for an estimated 60 percent of the country's total med-pot sales.

cannabis similarly to alcohol, an estimated \$1.6 billion in revenue will be added to this fully operational market. With adult-use sales expected to start by 2018, the total state market is projected to grow at a compound annual rate of 18.5 percent over the next five years, increasing from \$2.76 billion in 2015 to an estimated \$6.46 billion by 2020.

If Massachusetts approves adult recreational use, it would be the largest of the East Coast states to do so in November. Massachusetts is a major regional tourism hub and borders five medical-use states: Connecticut, New Hampshire, New York, Rhode Island and Vermont. This past year has been the first in which the new medical cannabis market has been fully operational in Massachusetts. Patient numbers are growing steadily, with monthly medical cannabis sales expected to surpass \$5 million by the end of the year.

By 2018, Massachusetts is projected to have the sixthlargest medical cannabis market in the country. If the state legalizes adult recreational use as well, sales are expected to begin in 2018, and they would likely eclipse medical sales within the first Caurter Nam Consider State designs

year, pushing the total legal cannabis market in Massachusetts to over \$1.1 billion by 2020.

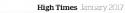
The industry's expansion has been fueled in large part by the strong growth in popular support for legalization across the country. Gallup polls indicate that 58 percent of Americans now support the legalization of cannabis for adult recreational use, up from 36 percent in 2005. A separate poll by Harris found that a whopping 81 percent of Americans now support legalizing medical use.

National attitudes have clearly and decisively swung in favor of legalization. The results of this pivotal election year will chart the course for the next phase of the industry's growth.

- Gretchen Gailey, John Kagia and Kacey Morrissey of New Frontier Data

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MARKET ANALYSIS

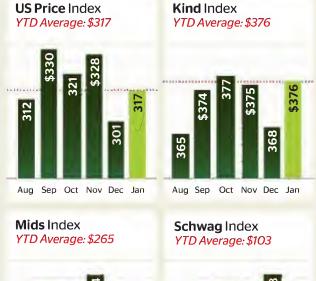
All indices, with the exception of the Schwag Index, rebounded from large declines in December 2016. The Kind, Mids and US Price indices all started the New Year above their previous month's

average. This will be the last month that we track the Kind, Mids and Schwag indices in the THMQ. More info to come in the February 2017 issue of HT.

BLUE DREAM \$365

\$308

HAZE \$320





STATE	CITY	STRAIN	PRICE
Alaska	Anchorage	God Bud	\$250
Arkansas	El Dorado	Bubba Kush	325
California	Los Angeles	Ghost Train Haze #1	280
Colorado	Denver	Tahoe OG	250
Connecticut	Hartford	Girl Scout Cookies	350
Delaware	Wilmington	Blue Dream	360
Florida	Orlando	Northern Lights	380
Georgia	Atlanta	Trainwreck	250
Hawaii	Maui	Headband	330
Illinois	Chicago	Critical+	360
Indiana	Indianapolis	Sensi Star	350
Louisiana	New Orleans	Blue Dream	380
Maine	Portland	Sour Diesel	200
	Baltimore	Sour Diesel	360
Massachusetts	Boston	Deadhead OG	375
Michigan	Traverse City	Chemdog	280
Minnesota	St. Paul	Sensi Star	360
Mississippi	Oxford	Grand Daddy Purps	360
Montana	Helena	Northern Lights	260
Nevada	Las Vegas	Death Star	375
New Jersey	Trenton	Juicy Fruit	350
New York	Brooklyn	Snow Dawg	360
North Carolina	Rocky Mount		325
		Northern Lights	
Ohio	Columbus	Blue Dream	360
Oregon	Portland	Banana Kush	180
Pennsylvania	Pittsburgh	Gorilla Glue	400
South Carolina	Columbia	SFV OG	400
Tennessee	Nashville	Vortex	560
Texas	Houston	Blue Dream	360
Utah	Salt Lake City	Gorilla Glue	350
Vermont	Burlington	East Coast Sour Diesel	330
Virginia	Richmond	White Widow	400
Washington	Seattle	Headband	200
Wisconsin INTERNATIONAL	Madison	Silver Haze	360
Australia Canada	Adelaide Montreal	Pineapple Chunk Chocolope	A\$220 C\$200
	Toronto	Lowryder	180
	Victoria	Space Bomb	150
United Kingdom	London	Vortex	£220

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ex) "Great smoke. Two tokes and I was high as a kite." -Nashville, TN







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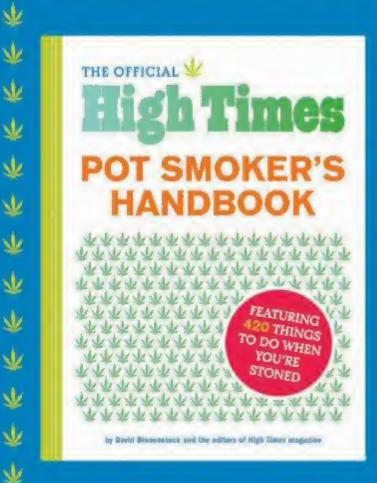
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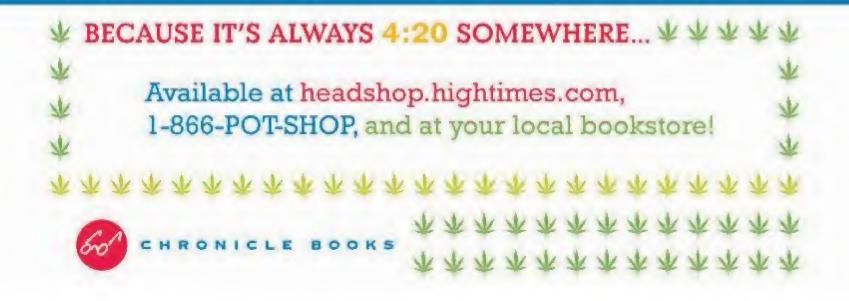
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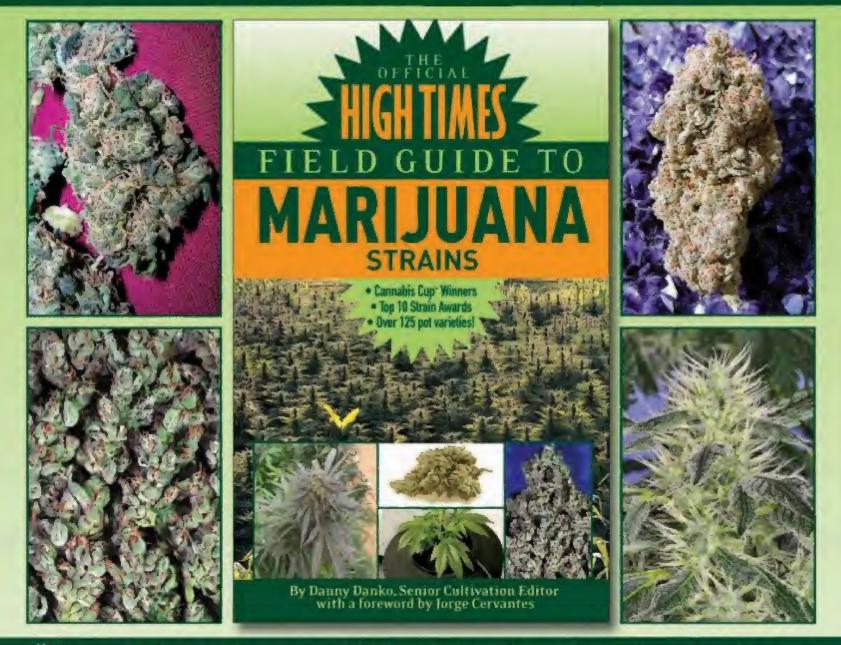
THE OFFICIAL High Times POT SMOKER'S HANDBOOK

FEATURING 420 THINGS TO DO WHEN YOU'RE STONED By David Bienenstock and the editors of *High Times* magazine

Learn how to roll the perfect joint Make the most potent pot brownies Smoke-proof a dorm room Order off an Amsterdam coffeeshop menu Improve your jay-dar And much, much more!



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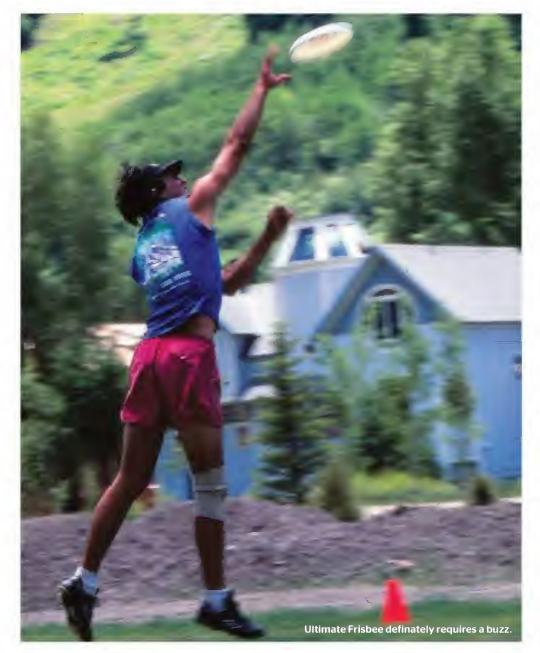
Cannabis will improve your workout and your sports experience. Better yet, you'll improve the quality of your high! *By Mark Miller*

Itimately, people who use cannabis in order to enhance their workouts or athletic training are seeking some sort of benefit—otherwise, why bother? And for a growing number of fitness buffs and competitive athletes, cannabis does just that. Moreover, there's very real science that shows not only that cannabis can improve your level of fitness, but also that your level of fitness enhances the rewards of cannabis itself.

Though much more research specific to cannabis and fitness needs to be done, the information available now is not just anecdotal. The science is already there, and more supportive studies are being released every month.

While pot has long been used as a performance enhancer for athletics and exercise, it's also been known since at least 2013 that exercise and participating in active sports enhances your high. A study released that year by researchers at the University of Sydney in Australia found that a vigorous workout by weed smokers resulted in 15 percent more THC in their blood after they completed a 35-minute workout on a stationary bike versus stoners who didn't exercise.

Why? THC enters the bloodstream via the fat cells where the compound is stored. During a workout, the body first uses glycogen stored in muscles as an energy source. In a workout that lasts 20 minutes or more, fat cells begin to be utilized for energy as well, inducing a pleasant buzz. The only way to avoid this effect would be to abstain from weed completely; eventually, the THC would dissipate from the system. Thus, with increased research into the many medical benefits that marijuana can provide to athletes-along with more sophisticated products and methods of consumption-cannabis may well become the first universally accepted performanceenhancing drug.



The Benefits of Buds

As of May 2015, 111 chemical compounds produced by the marijuana plant have been identified, including psychoactive and therapeutic tetrahydrocannabinol (THC), and nonpsychoactive and highly therapeutic cannabidiol (CBD). Moreover, the ability of these cannabinoids to heal and help the athlete is only beginning to be understood and applied. Here are but five striking ways that cannabis benefits the human body.

Neuroprotection

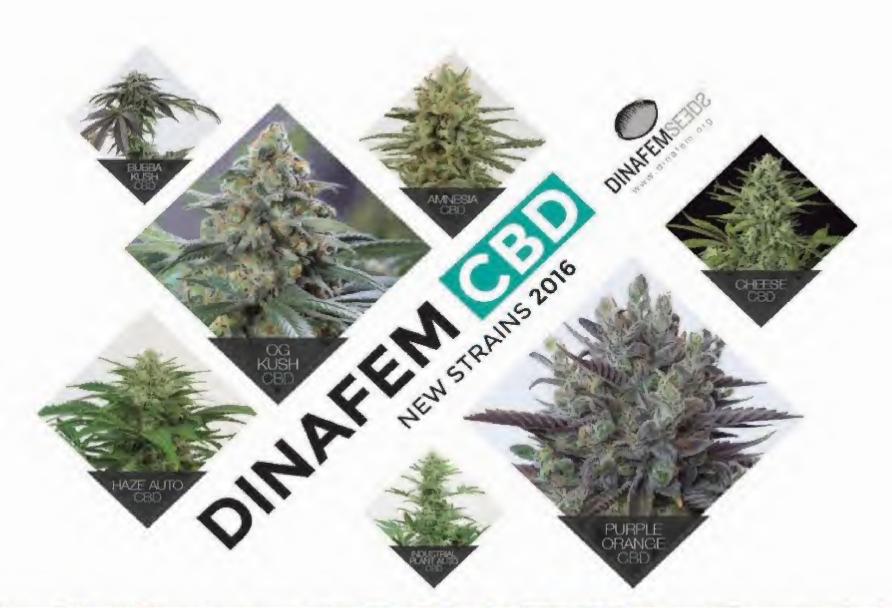
In 2014, Dr. Lester Grinspoon, the esteemed Harvard medical professor and author of *Marihuana Reconsidered*, wrote NFL Commissioner Roger Goodell urging him to allow cannabis use to prevent concussions and other brain injuries, which have been linked to deadly chronic traumatic encephalopathy (CTE). Pre-clinical research has clearly demonstrated that cannabis's activation of endogenous cannabinoid receptors in the brain not only provides protection against damage; it also fosters neurogenesis, or the creation of new brain cells.

Healing and Strengthening Bones

In 2015, cannabis researchers at Tel Aviv University found that CBD had a significant impact in healing bone fractures. In the spirit of "all marijuana is medicine," the researchers also stated that cannabis use strengthens bones, protecting them against future injury.

Reducing Inflammation

Studies have shown that THC is able to reduce the development of atherosclerosis, the chronic inflammatory disease that is a major risk factor in heart attacks and strokes. It's also been shown to be effective in reducing airway inflammation related to the flu. CBD is capable of reducing joint inflammation and has been proven effective in inhibiting the disease's progression. CBD has also been shown to effectively reduce edema. For those suffering from Crohn's disease, cannabis can decrease digestive-track inflammation and has further been shown to improve the chances of reaching complete remission. Studies also suggest that the cannabinoids in marijuana may be beneficial with certain types of cancer that are triggered by chronic inflammation.



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Pain Relief

CBD receptors are part of the human body's makeup. When an ointment containing CBD is applied to an injured area, the body produces CBD and directs its healing efforts to that particular location, helping to heal the injury. Opioids can be effective, especially in dealing with post-surgical pain, but patients frequently increase their intake to reduce suffering; the results include debilitating side effects and possible addiction. Cannabis has been used to treat many different types of pain. As a result, researchers believe that its use can help break the chronic-pain cycle.

Bronchodilation

Studies have pointed to the ability of cannabinoids to enhance lung function by acting as a bronchodilator, as opposed to causing bronchoconstriction like tobacco does. Findings suggest that cannabis has significant effects on the large airway function associated with bronchitis and mucous production, effects that are greater than those found for tobacco. But cannabis has little or no effect in terms of airway obstruction or heightening the risk of chronic obstructive pulmonary disease (COPD). Studies have shown that cannabis also improves the oxygenation of tissues.

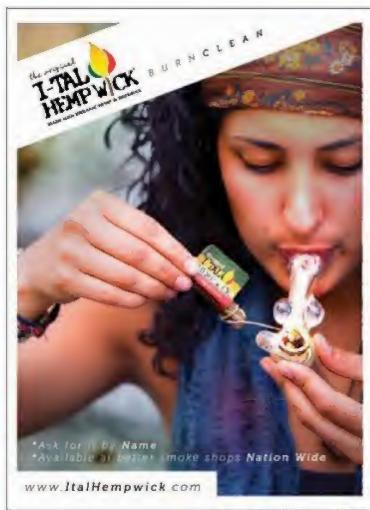


Ganja Yoga The combination of cannabis and yoga will relieve tension and stress at all levels.

Dee Dussault invented Ganja Yoga and conducts classes in San Francisco and around the world. She recommends edibles as being best for the workout experience.

"Edibles provide people with an optimal body high, especially once they're familiar with the dose that works for them," she explains. "And when they find an edible they like, it's just an exquisite feeling. It's not the same as smoking or vaping. Of course, those things have their





COURTESY OF DEE DUSSAULT



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(h) Herbalizer

Dee believes that cannabis can be utilized at every stage of the yoga experience, from warm-ups to comedown or recovery. merits, but I think for embodied yoga [the practice of bringing consciousness to each moment of moving], edibles are ideal."

Dussault says that, at her Wednesday class in San Francisco, she and her students will smoke joints and use vaporizers. When they do turn to flow-

ers, they rely on *sativa* for the actual practice of Ganja Yoga; it better facilitates the act of tapping into more energetic states of being, along with heightened visualization. For Dee, *sativa* strains foster creative posturing.

At her Thursday class, Dee prefers edibles and vapes only—no combustion. On both days, *indica* and CBD are consumed for the final meditation during the last part of the practice. Dee believes that cannabis can be utilized at every stage of the yoga experience, from warm-ups to comedown or recovery.

"It's fine whenever people want to use it," she says. "Some do it at first, before we start, and forget about it. Others bring their pipe to their mat and toke every few poses—whenever it feels right for them."



A Pot-Friendly Gym Jim McAlpine of Power Point Fitness believes in the weed workout.

A staunch advocate for the use of marijuana in building muscles, McAlpine established the 420 Games and co-founded Power Plant Fitness, a ganja-friendly gym opening in San Francisco.

This past year, the 420 Games were held in Colorado, Oregon, Washington and California, states where recreational or medical pot is legal. Every event features a 4.20-mile marijuana marathon as well as the Power Plant Fitness Challenge, a timed race of strength, endurance and power that includes a stretch where participants haul kegs!

The Power Plant Fitness gym represents McAlpine's latest endeavor. Along with his partner, the former NFL star running back Ricky Williams, he's created a cannabis-oriented gym—something that Jim has wanted to do for a long time.

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As he explains: "We have our location in San Francisco and should be opening at the end of this year or the start of 2017. We're not a dispensary—we're a cannabis-friendly fitness and wellness center, a place where it's accepted to come and work out and use cannabis. Unlike most other places where you have to hide that, at our gym you'll be able to consume on-site. "But it's not a stoner gym. It's the reverse it's for athletes who want to use cannabis while they work out. Right now, only vaping and edibles will be allowed. But we're in the process of constructing a rooftop, which will allow the full consumption of flowers, including combustion. We're very serious about it. There will be a lot of rules in order to make sure that no one does anything stupid or Unlike most other places where you have to hide that, at our gym you'll be able to consume on-site. overdoes it." Jim describes the "rigorous curriculum" they've designed, which represents the cutting edge in the merging of fitness and cannabis. "When you join PPF, there are two unique things about it. First, everyone who joins will get a consultation with a medical

marijuana doctor, so they have the opportunity to get their medical card at our gym.

"Then your first workout is with a trainer, which is performed sober. The first workout demonstrates what you're like when you're not on cannabis, which is a really important baseline to set. From there, we can work with you to integrate cannabis into your workouts. After we understand who and what you're about, then you can use the gym on your own.

"We're taking a scientific approach," Jim adds, "formulating different tests to understand how you live your life. We'll work out with you and determine your level of athleticism. Then we'll talk to you about your cannabis use—what type you use, how often do you use it, what type of strains you like, and how it makes you feel." \leq



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Why Marijuana Growing Education Is a Top Priority for Advanced Nutrients

The medical marijuana industry is growing every minutelegal marijuana is the fastest-growing industry in the U.S. and a slew of other businesses are jumping on the bandwagon as well. At present, 23 U.S. states allow medical-marijuana use while 7 have legislation pending to issue licenses for it.

4 states and Washington, D.C. have legalized cannabis outright, while another California referendum in 2016 will allow recreational use in a state that was the first to permit medical marijuana use way back in 1996. It is estimated, that medical marijuana is already a multibillion-dollar industry (without counting recreational sales) While a great deal of information and mismamation appears daily on the Internet, novices and more advanced growers alike are always looking for a source of reliable information which can serve to improve their yields, both in terms of quality and quantity. A whole community of growers inhabit the growers' forums and are always looking to perfect their growing skills, without having to wade through hours and hours of irrelevant or misleading forum posts.

GMU is a bold step in a better direction and by elevating the general level of education among grawers, the quality of marijuana, especially, as medicine, will skyrocker worldwide. This isn't just for connoisseurs. It's for children with epilepsy, as well as adults suffering from the effects of chemotherapy, chronic pain, and glaucoma. Thousands of YouTube videos help document the impressive results of therapeutic cannabis use.

Grow Med University is a course representing the cumulative experience of scores of the most competitive growing experts. From day one, it was envisioned as a communitydriven resource, providing much needed knowledge to the medical-marijuana community. If you have a passion for hydroponics and growing marijuana to help patients get rid of illness and pain, then Grow Med University is for you.

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Advanced Nutrients

Take a trip to the Pacific Northwest for an exclusive tour of Pistil Point Farms, a massive legal cultivation facility in the City of Roses run by a dedicated team with decades of growing experience. *Story by Danny Danko. Photographs by Computerscu*ra.

High Times

One of Pistil Point's climatecontrolled rooms filled with exquisite cannabis



60 Rip City Mega-Grow!



Meet the Crew

Pistil Point Farms has designed and constructed a state-of-theart marijuana-production facility in Portland, Oregon, that is expanding constantly to serve the needs of medical patients, as well as the flood of new recreational users and cannabis tourists flocking to Oregon to enjoy the state's legal-pot scene.

But the story here isn't about quantity; it's about quality. Despite the massive amounts that the company produces, Pistil Point's cannabis stands out in a competitive market. This quality is a testament to the company's work ethic and love of marijuana. Co-founders Sid Gupta and Josh Schmidt put together a grow team with decades of outdoor and greenhouse cultivation experience throughout Northern California, and then enabled these growers to adapt their mega-cropping methods to massive indoor warehouse growing in Oregon.

As a long-time entrepreneur in New York City's bar and restaurant scene, Gupta recognized the need for dedicated employees with extensive experience and a strong work ethic. Schmidt (who also comes from a restaurateur background) has grown for many years on big outdoor farms in Northern Cali. He also operated THC, one of the first dispensaries in the city of Van Nuys, more than a decade ago, and so he understands the needs of both shop owners and cannabis producers.

Drawing on their combined experience and shared understanding that a great grow requires gifted growers, the pair brought in a new partner, Sithat Xaivong, a.k.a. Thui, as their head of cultivation. Thui, who's been growing cannabis for more than a decade, was born in a refugee camp in Thailand in the aftermath of the civil war in his native Laos. He immigrated with his family to the United States as a child, became an American citizen and went on to serve two tours in Iraq as a sergeant in the US Army.

Like Thui, many of the other members of Pistil Point's grow team have Southeast Asian roots. Gupta explains the company's overall strategy: "About four years ago, I started to contemplate a point of entry into the cannabis sector after a lifetime of passion for the plant. While there were many approaches, from adult-use retail to processing to 'picks and shovels' on the supply side, I ultimately decided that for the long-term integrity of a successful cannabis company, it was necessary to have a fundamental understanding of the plant, along with the strongest genetic resources available. For this reason, we've focused on collecting those genetics and developing best practices in how to cultivate them."

Pistil Point's attention to detail and refusal to compromise results in connoisseur-quality cannabis and consumables created on a large scale. Everything from the choice of strains and cultivation techniques, to the processing, lab testing and packaging, is the result of the company's commitment to ensure the finest quality in its final product.



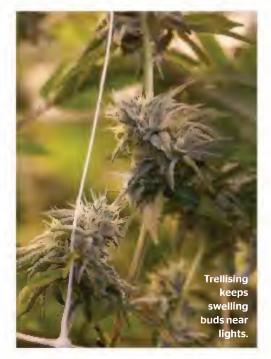
62 Rip City Mega-Grow!



Growing Strains

It all starts with great genetics, and Pistil Point's favorite sources include Franchise Genetics, Rare Dankness, Sunny Cheba, Dying Breed, the Cali Connection, Top Dawg and other private breeders. Pistil Point hunts for genotypes and phenotypes throughout hundreds of packs of seeds to find its keeper mother plants. After that, a painstaking selection of healthy clones ensures that the plants continue to pack a punch. Hard-to-find clone-only strains are carefully sourced and tested before going into production as well.

The strains that Pistil Point grows, including Gorilla Glue #4, Girl Scout Cookies, Clementine and J1, all boast a whopping 27% THC or more in lab tests! The testing for potency, terpenes and contaminants is done exclusively by MRX Labs in Portland.







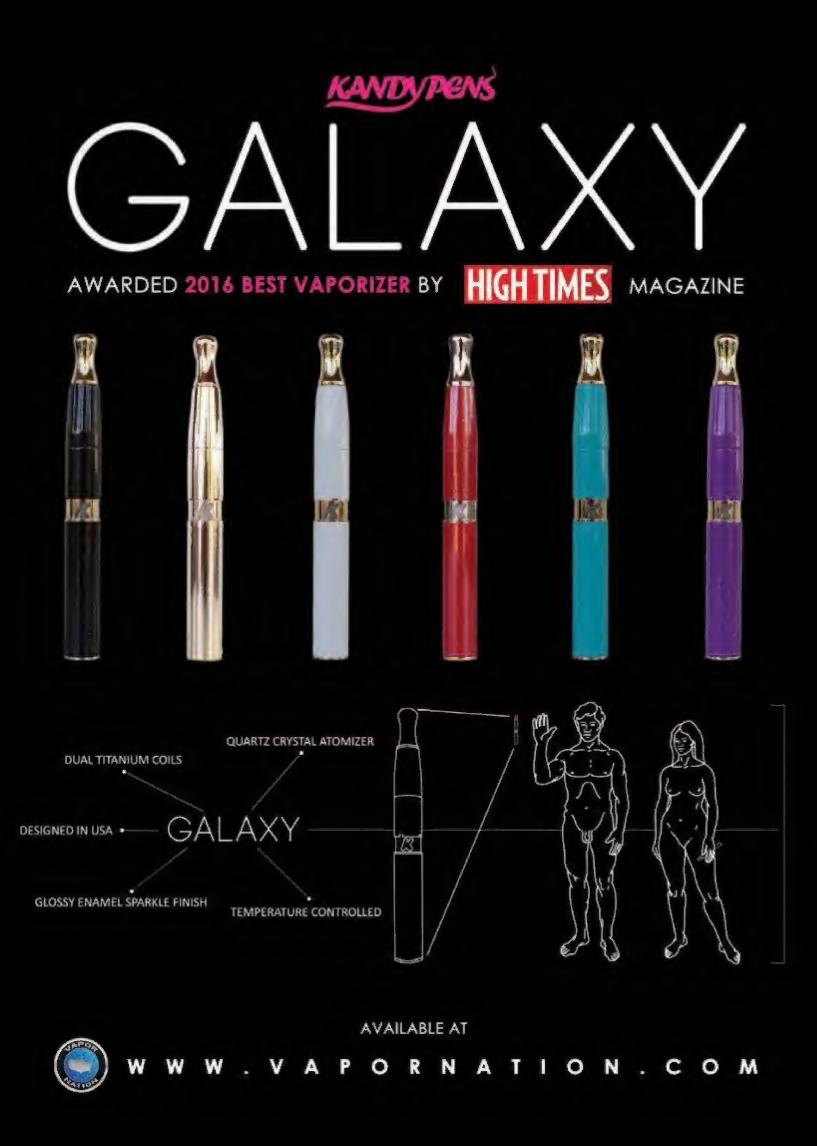
Specs

All of the plants at Pistil Point are grown in a coconut-coir-based medium to ensure root aeration. The coir is amended with earthworm casings, then placed in 35- to 50-liter containers and fed with a variety of nutrients. When pressed for specifics such as preferred brands, Thui would only reveal that he's had the greatest success with Cutting Edge Solutions—his plants love the simple yet effective feeding regimen delivered by these nutrients.

Equipment and supplies are purchased exclusively from Roots Garden Supply, whose owner, Neil Bernstein, is a great friend and ally. "Neil's guidance has been crucial to the success of Pistil Point," Gupta says. "He has a team of gifted growers that help run his shop and who are always honest and passionate. We're lucky to exchange thoughts and concepts with them."

Pistil Point's grow team employs a "screen of green" (ScrOG) technique to obtain the highest yields and also to spread out the canopy in order to avoid unnecessary crowding. This supports the weight of the plants and keeps them at the optimum canopy level to thrive. The growers use only organic pesticides and fungicides such as Grand Devo and Regalia.

At the moment, Pistil Point has two full bloom rooms totaling 96 lights licensed under Oregon's medical marijuana program. Limited by plant counts, the grow team vegged fewer plants for longer periods to obtain greater yields, but under Pistil Point's new indoor rec license, the grow will be expanding to nine rooms, for a total of 450 lights. In simple terms, the facility will upgrade from 50 to 120 plants to as many as 600 plants *per room*! This "sea of green" (SOG)–style approach will produce bigger yields in less time without compromising quality.





Lighting the Space

Each of Pistil Point's growrooms uses 48 1,000-watt lights broken up into four separate grids, with 10 high-pressure sodium (HPS) fixtures on each, plus two metal halide (MH) lights on movers. This scheme allows for a full spectrum of red, orange and yellow from the HPS lights and blue and white from the MH. "Plants can only absorb so much of each color, and the mixed light helps increase photosynthesis and allows our genetics to develop to their full potential," Schmidt explains. "It doesn't really increase yield much, but it certainly increases the quality of the finished product."

The lights are affixed to a pulley system that allows Pistil Point's growers to position them approximately 60 inches from the canopy at the beginning of the bloom cycle and again towards the end. The team keeps the lights as close as 36 inches from the canopy during the middle of the cycle, in order to simulate the sun's natural patterns during the spring, summer and fall.

Pistil Point uses Gavita lighting with adjustable ballasts ranging from 500 to 1,150 watts, controlled by a Gavita EL2 master controller. One great safety feature of the EL2 is that if a room gets too hot, the controller will auto-dim the lights or shut them off entirely. Pistil Point also utilizes the lights' built-in "sunrise" and "sunset" settings, which will increase the lights' intensity over a period of 15 minutes (as in sunrise) and then, at the end of the day, will decrease it over the same period (as in sunset) to mimic natural outdoor conditions. According to Schmidt, "The EL2 controller and the DE [double-ended] lights have changed the game by eliminating costly electrical contractors for lighting timers. They also lower the risk of one burning out and potentially hurting our plants or making them hermaphrodites."

During the transition from the vegetative stage to flowering, Pistil Point's growers use the adjustable ballasts to set the lights at a lower wattage for the HPS (500 watts), while turning the MH on full blast (1,000 watts). The team does this for the first week in order to acclimate the plants to the transition from a lower light intensity during veg to a harder one for the flowering stage. The growers then raise the wattage of the lights gradually to simulate the intensity of the sun in the summer months, bringing them to their full 1.150-watt output toward the middle of the cycle. They then start to scale back the intensity to simulate the summer changing to fall; toward the end of the cycle, the lights are raised on the pulley system while the wattage is dropped to the minimum settings again to mimic the sun being further away from the earth, as in fall, allowing the flowers to ripen properly.

It doesn't really increase yield much, but it certainly increases the quality of the finished product.

Atmosphere

Pistil Point's growers change the temperature throughout the bloom cycle via 20 tons of HVAC per room, lowering the temps toward the end of the cycle to simulate fall. The team uses three Quest 205 dehumidifiers in each room to control humidity, set around 55%. The growers also depend on Titan controls for the injection of carbon dioxide. The facility has a 250-gallon tank that's piped into the HVAC system for consistent feedings of food-grade carbon dioxide; a sniffer is used to sense the room conditions, and the CO_2 is automatically fed as needed.

The custom-built 20-inch-high corrugated tables roll on tracks, enabling Pistil Point's growers to access every plant. This is crucial to diagnosing any deficiencies or pest infestations. The tables slope and have a gutter at the end with an automated sub-pump for draining. The plants are fed using an automated drip system intermittently, depending on which stage of life they're in.

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Processing

Most of Pistil Point's strains have a nine-to-10-week flowering period, and they're flushed with plain water for at least two weeks. All of the water goes through reverse-osmosis (RO) filtration. The team also lets the plants "sleep" in the dark for two full days prior to harvest to enhance their essential-oil production.

The plants are then hung and dried for 10 to 14 days before any trimming begins. The drying room is kept at 55% humidity, with fans providing air circulation without blowing directly onto the plants. Thui emphasizes that the real curing begins in the drying room, because a nice, slow dry results in a cleanerburning product.

Once dry, all of the buds are hand-trimmed. Pistil Point doesn't like to use trimming machines, which can compromise the quality of the product; only good human trimmers can get into every nook and cranny and remove all of the unwanted leaves and stems. The buds then go into their curing containers to ensure potency, flavor and consistency.



Thui emphasizes that the real curing begins in the drying room, because a nice slow dry results in a cleanerburning product.

Future Plans

Pistil Point's products are currently on sale in more than 100 stores in Oregon, and the company's reach is constantly expanding. To that end, it's working on a full line of jarred flowers, pre-rolled joints and BHO (butane-extracted hash oil) shatter with special packaging. Given the company's success thus far, the future is looking bright green for Pistil Point Farms! 🐇





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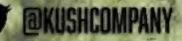
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DANNABIS CUP





High Times goes pot shopping with the real-life cannabis couple behind HBO's High Maintenance, a mind-bending comedy about a bike-pedaling weed-delivery guy and life in the Baked Apple.

Story by David Bienenstock Photos by David Lee Dailey

SALT & PEPP



Despite a bumper crop of new potthemed programming premiering on television and via premium streaming this year (see page 36), nothing in popular culture right now comes close to reflecting the post-prohibition marijuana moment quite like HBO's *High Maintenance*—a highbrow comedy that's not so much about pot as it is about people. And yet, in a twist of irony fit for the end of O. Henry's joint, the show's entire premise relies on weed still being illegal in New York City.

How else would The Guy, *High Maintenance*'s nameless protagonist, manage to get so up close and personal with his big-city clientele? Summoned by cell phone, arriving on bicycle, laden with black-market marijuana and offering a sympathetic ear, he's eagerly invited into the homes of NYC weed enthusiasts from all walks of life.

"Marijuana delivery is a Trojan horse that allows us to get inside all of these New York apartments," says Ben Sinclair, who plays The Guy and co-created the series. "The characters we find there smoke weed, but they're not defined by that activity."

"People's guards are usually down when the weed guy comes, they don't tend to tidy up or put on a face."

"Also, people's guards are usually down when the weed guy comes," adds co-creator Katja Blichfeld. "People don't tend to tidy up their apartment and put on a face for a pot delivery. So The Guy often gets more of an unfiltered view of what really goes on behind closed doors than someone's close friends and neighbors."

A real-life cannabis couple, Sinclair and Blichfeld got married on New Year's Eve in 2010 and soon after started writing what became the first episode of *High Maintenance*. She was already an Emmy-nominated casting director for *30 Rock*, and he'd had a few minor roles in movies and on TV, but neither could ever have predicted that a show they wrote and directed on a shoestring budget—often enlisting friends as actors and crew, and shooting in their borrowed apartments—would eventually land them a deal with the people who bring you *Game of Thrones*.

"As a couple, this is our homemade project. In the past, we've jokingly called it 'our baby,'" Ben recalls of those early DIY episodes, which they released for free on the Internet-garnering a cult following and rave reviews. "From when we first got together, cannabis has always been something we've bonded over, and it's also been part of our creative process-especially because there's such a ritual to it. If things get stuck when we're writing, we get stoned and go somewhere peaceful. Once we step away from the project and let our minds wander-with the help of a little herbwe tend to find answers to our vexing creative problems. On set, however, we don't smoke, because we recognize that weed will likely not help us make a series of difficult decisions quickly."

While Ben and Katja still live and work behind the *irie curtain* in herbunfriendly New York, their newfound status as movers and shakers takes them

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out to Hollywood often enough that they've recently gotten their medical cannabis recommendations in the Golden State. So we thought: What better way to celebrate the imminent HBO premiere of the series than by treating the creative team behind it to a \$420 shopping spree at one of *High Times'* favorite LA dispensaries?

Located in the heart of Studio City, and a favorite with many in the entertainment industry, Buds & Roses offers a full range of top-flight medical cannabis. It's a boutique shop that stresses quality over quantity, but it still carries way, way more product than The Guy could ever hope to fit in his bike-messenger bag.

And so, as part of a deal that saw them haul off a goodly supply of medical marijuana in all its forms at *HT*'s expense (see photo on page 69), Ben and Katja promised to report back two weeks later to let us know what they thought of West Coast weed.

First, the raves: "We got a lot of Strawberry Cough," Ben says, "which I know has won some of your Cannabis Cups, and that bud was awesome. I appreciated it because it's really euphoric—and maybe I'm also subconsciously prone to liking something that won a contest. I mean, how can you not think to yourself, *'High Times* knows what's good'?"

"We got some cannabis-infused potato chips," Katja adds. "I don't remember what they were called [Yummi Karma], but they were insanely good. The biggest compliment I can give them is that I'm really glad we only bought one bag, because I would have probably kept going."

Any disappointments?

"There was definitely one time when we smoked a Chong's Choice joint and were left questioning some of Tommy Chong's choices," says Ben. Then again, he admits that he just might be subconsciously prone to not liking heavily marketed marijuana.

"Also, we've never really been into the whole stoner-comedy genre, which was actually one of the reasons we started making *High Maintenance*," Katja reveals. "At the time, we were smoking a lot of weed and itching to create something together, and we just thought it would be cool to have narratives that feature people getting high like it's no big thing."

High Maintenance never overtly calls for the end of pot prohibition or explores its worst outcomes (for example, nobody's ever busted on the show). But Ben and Katja do feel very passionately about



"We've never really been into the whole stonercomedy genre, which was actually one of the reasons we started making High Maintenance."

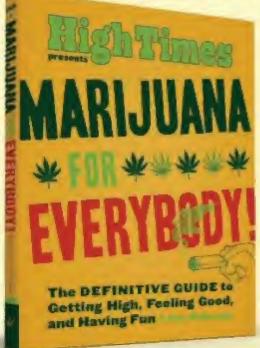
legalizing the herb; they just prefer to put plot above politics for the show. Though in doing so, and by creating such compelling characters, they manage to challenge some of the deepest prejudices underpinning the War on Weed, and even subvert the lie at its very heart—that some scary "other" smokes pot, instead of pretty much everyone in society.

"It's horrible that there are so many people wasting away in our prisons for something that's so innocuous," Katja says. "The injustice of that personally makes us intensely upset. But *High* *Maintenance*, as a show, is not some political polemic."

"We're not freedom fighters; we're storytellers," Ben adds. "We don't want to get on a soapbox about injustice and legalization in the show—we just want you to feel some compassion for these characters. That said, I love being on the right side of history, and so we feel very positive about being in solidarity with *High Times* and all of the people working for legalization. It feels like we belong to the community, and it's a community we're proud to help represent." *****



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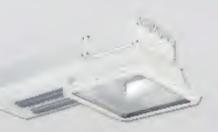
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76 4 of a Kind

The Cannabiotix crew revels in a garden of White Walker OG, Wifi OG, and Redeye OG.

High Times

At last, the cannabis industry is laying down firm roots in Nevada. Four of the top pot producers in Las Vegas show their cards—and guess what? They're all aces in the garden! *Story & photos by Dan Skye*

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51

At the Source, an expanse of Anslinger approaches harvest.

11,

This gorgeous grow op at Matrix NV is comprised of Blue Jay Way, Gorilla Glue, Tangilope and Super Sour Diesel.

4 of a Kind 77

aKind

White Zombie is one of the stellar strains cultivated in the gardens of Tryke Companies.

Neema

chief operations officer at Cannabiotix The garden: "My partner JB and I are indoor hydroponic growers who run large-scale boutique-cannabis facili-

ties. Our team primarily grows in coco coir, with a top-feed, drain-to-waste fertilization method. We selected the drain-to-waste feeding method because it allows more control over each feed from one nutrient batch to the next. Furthermore, we hand-water our plants in the vegetation phase, when they're building their foundations for the remainder of their growth cycle; this lets us ensure that we never under- or overwater them during this time. Our grow philosophy revolves around giving each plant customized individual attention. Quite simply, the more you put in, the more attention you pay to detail, the more you'll get out of each strain. One of our primary concerns is maintaining a sterile environment and implementing the proper sanitation protocols to prevent the introduction of pests and contaminants into our growroom environments. Cleanliness really is next to godliness. If you keep your operation impeccably clean, it will pay huge dividends."

His advice: "Experience is the best teacher. If you want to become a talented grower, run controlled experiments repeatedly. Collect and interpret the data you gain and use these results to fine-tune your grow game. We honestly believe that cultivating cannabis is a craft that can never be truly mastered. If you work hard, stay humble, meticulously monitor your garden, and pay detailed attention to every step of the grow and the drying and curing process, you'll always be satisfied with the end result."

Evan Marder

master grower at Matrix, NV The garden: "We depend on highly automated, top-ofthe-line equipment, inspired by Good Manufacturing Practice [a system ensuring that products are consistently

produced and quality-controlled according to set standards, thereby minimizing the risks that can't be eliminated by testing in any pharmaceutical product]. GMP and clean-room specifications have led us to use a combination of the finest purified-mineral and refinedorganic horticultural inputs. We've chosen this method in the pursuit of consistency and exceptional-quality medicine. The high level of automation allows our cultivators to focus their time on active observation and plant care. Still, the pursuit of perfection can be costly, and it requires constant focus on improving efficiencies without negatively impacting the medicine."

His advice: "The devil is in the details—do not lose the forest for the trees. Do your best to execute even the simplest and most mundane tasks with precision and consistency. Most importantly, stay sharp: pay attention, keep an active eye, and develop and trust your intuition."



became legal in Nevada back in 2000. But there were drawbacks to the program. As a patient, you were able grow up to 12 plants in your primary residence, and that was it. You could also designate a caregiver

as well, but co-ops weren't in the cards.

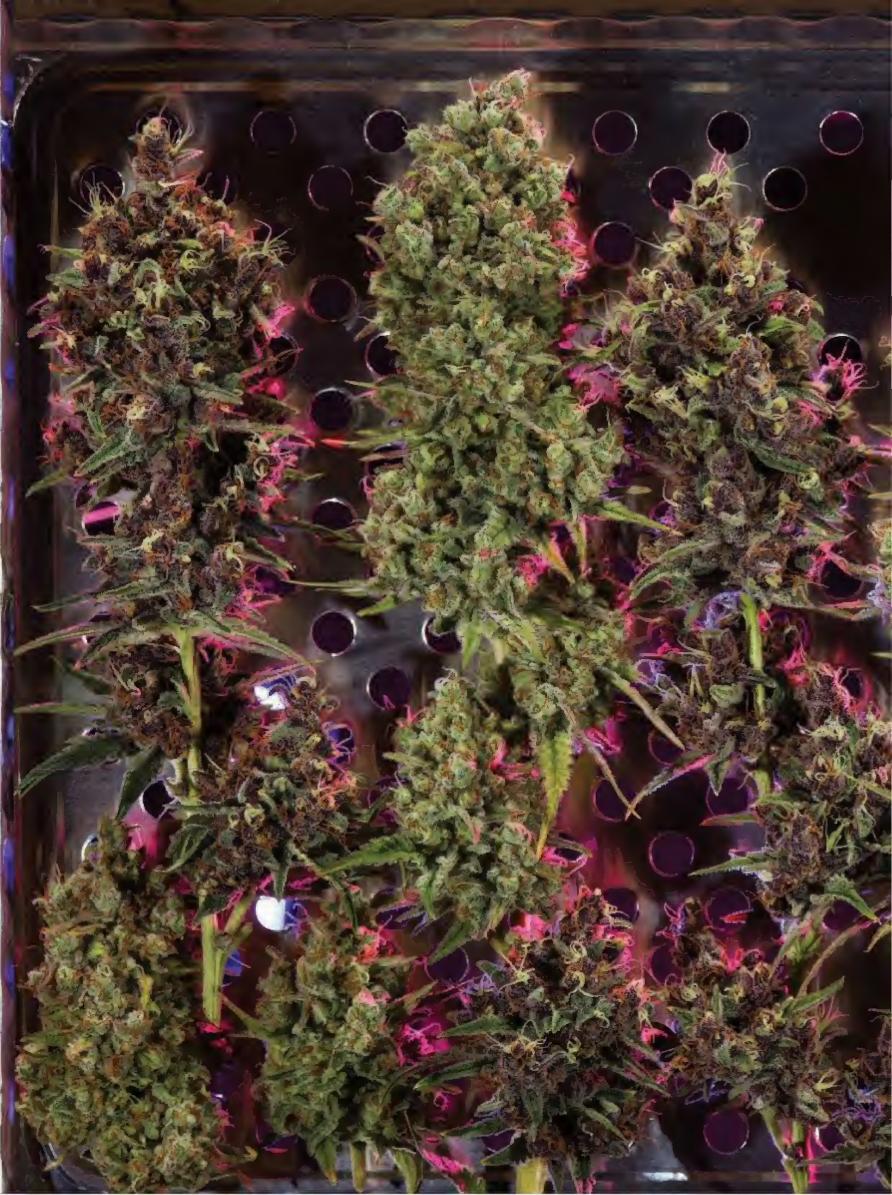
Patients couldn't legally purchase pot. Of course, that didn't stop the cultivation community. In the early 2000s, *High Times* prominently covered the thriving black-market scene in Las Vegas. It was a risky business, though: Over the years, hundreds of growers were busted trying to cash in on the rising demand for wellgrown medical cannabis. And while many storefronts tried to open as collectives or dispensaries, they were outside the scope of the law and found themselves invariably raided and shuttered.

Finally, in 2013, the Nevada state legislature enacted a law allowing dispensaries and production facilities to go into business. The bill set up a regulatory structure covering everything from quality-assurance and safety rules to requirements for obtaining a medical marijuana business license. However, home cultivation was now disallowed, unless the patient lives more than 25 miles from a dispensary or is unable to travel due to health reasons.

Andrew Jolley, a native Las Vegan, is the CEO of Nevada Organic Remedies, which operates two local dispensaries called The Source. He's also president of the Nevada Dispensary Association. "I was naive enough to sign up for the job earlier this year," says the friendly and self-effacing Jolley. "I'm the second president, and it's been a very interesting ride. We all expected some bumps in the road along the way, but they've been more like jumps, not bumps. It's a brand-new program, and the regulators who oversee it had no prior experience-and they're in charge of an industry that just so happens to be the lead story on the news every night.

"They found themselves trying to sort it out, just like the owners of the new businesses. It hasn't been flawless, but fortunately, I think things overall are headed in the right direction. We have a very good working relationship with our regulators, and they've been very willing to work with us and do what's in the best interest of patients. My personal style is to assume that everyone has the best interests in mind," Jolley adds. "We have to assume that this program is here not to serve regulators or the industry, but to serve patients."

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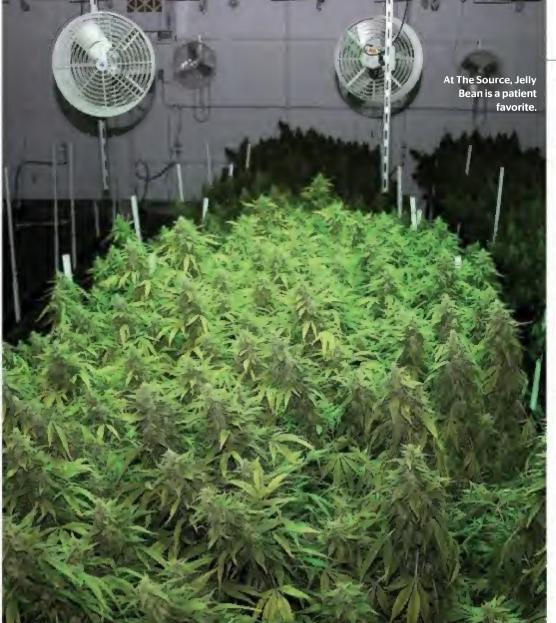
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master grower at The Source The garden: "Our cultivation operations are based on efficiency and growing the

highest-quality cannabis. We strive for cleanliness, standardization and professionalism. We utilize automation for fertigation [the injection of fertilizers, soil amendments and other water-soluble products into the irrigation system] and climate control, which liberates growers' time so they can keep a vigilant eye on the garden and plant health. We practice a variety of watering techniques, the most common being subsurface irrigation.

"Growing cannabis doesn't need to be a quessing game. We rely on carefully programmed perpetual harvests, which provide supply consistency. This ensures timely delivery of the freshest possible cannabis to our clients and their customers. The one pronounced risk of highly efficient operations is that the amount of product produced in a short period of time can exceed the demand in early-stage markets. We work closely with our clients to ensure that their business's scale is in lockstep with their respective markets."

His advice: "There's a widely held misconception that cannabis is a golden ticket, an easy path to wealth. It's not. Cannabis cultivation and retail distribution within a highly regulated system is complex and requires considerable time and attention and a broad array of skill sets. There's no such thing as a 'master' grower-even the most experienced, talented plant scientist and facility operator is always a student."

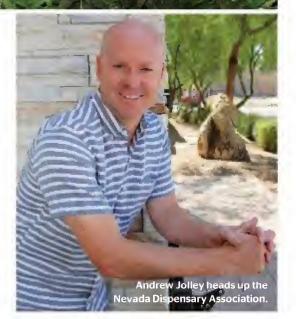
t The Source, production is supervised by Mjardin, a turnkey cultivation-services company that provides facility design, systems implementation and day-to-day professional management of

large-scale grows. MJardin originated in Colorado and now serves clients in 10 states. "With two dispensaries, two cultivations

and a production license right out of the gate-and no real previous experience in this industry-it was a very daunting task," Jolley recalls. "We felt it was important to bring in talented, experienced people. We knew that we couldn't do everything ourselves."

The real test for Nevada's cannabis industry will be adult recreational use-assuming the state's voters pass Question 2 on Election Day. "I'm very excited about it," Jolley says. "I sincerely hope that it passes-not only for obvious business reasons, but for what it would mean to our community, all of the good things it would bring."

Full-out legalization is on everyone's mind, and the sprawling grow ops now operating locally reflect the dreams of the industry. David Tuttleman, who leads the charge at Matrix NV, has laid the groundwork for this new era. He owned the wildly successful,



tropical-themed restaurant Kahunaville in Las Vegas, but closed it last February in order to fulfill a dream he had with Evan Marder, his master cultivator.

"Evan and I have been friends for 23 years," Tuttleman explains. "He was my first assistant at Kahunaville. We always dreamed of selling [pot] brownies in our restaurants. When we saw real legalization go into effect, we moved forward utilizing my management skills and his growing skills to create Matrix.



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Basically, this is my fifth career: I've worked in restaurants, women's clothing, entertainment, so this is a new chapter of my life. The business is exciting, and an amazing way to support our local population. I'm passionate about it!"

The Matrix NV facility is on the outskirts of Vegas, a 30,000-square-foot building with four massive bloom rooms and the requisite veg, drying and "birthing" rooms for clone management. Construction started only a year ago, but Matrix NV is now at full speed, producing 13 strains, with space available to double its operations. Matrix will expand to include concentrates and edibles production in the near future.

"A recreational marketplace would be best for everybody who comes to Las Vegas," Tuttleman says. "We're thankful we're licensed medically and believe that recreational will only help us be more successful. We came out of the productdevelopment business. We understand the populace and tourism and what drives people to this town: obviously, gaming, but entertainment and food are massive right now. Nightclubs are really gaining traction. What better than marijuana to go along with all that entertainment and food?"

At Tryke Companies, Darin Carpenter supervises operations with a methodical, military-style precision. He served as a medic with the elite Army Rangers and holds degrees in genetics, biochemistry and cellular biology. "I did a lot of greenhouse breeding projects before Tryke, managing 18 nurseries," he says. "I understand controlled environments and plant physiology and the ins and outs of growing."

Carpenter oversees Tryke's two indoor grows: one in Las Vegas, with a total capacity of well over 100,000 square feet, and another in Phoenix, AZ, with just under 40,000 square feet. Like Matrix NV, the latter operation is just reaching its first anniversary.

"Between both cultivation sites, we have a couple hundred strains in our genetic locker," Carpenter says. "We focus on specific strains that are commercially viable, as well as boutique niche strains. We try to provide a full menu of strains, with various levels of potency and complete terpene profiles."

The Vegas facility currently has 165,000 square feet available; when fully built out, Carpenter notes, it will probably be the largest in the state, producing hundreds of pounds per month. Tryke operates and supplies The Reef, a chain of five sleek dispensaries—two in Vegas, two in the Reno area, and one in *continued on page 130*



Darin Carpenter

cultivation director at Tryke Companies

The garden: "With environmental impact and efficiency in mind, I've designed Tryke's cultivations using high-efficiency technologies. Both sites utilize a topdown, drip-fed fertigation system. The Las Vegas facility utilizes an efficient, centralized chilling system that provides several thousand tons of cooling as well as water-recovery systems. Water recycling allows us to reduce environmental impact and cuts the cost by about 40 to 60 percent. Tryke currently utilizes

automation to provide consistency in various processes, such as nutrient dosing, irrigation schedules, lighting and environments.

"Currently, the Las Vegas facility employs 46 full-time team members between the veg, flower and finished-products departments. In Phoenix, we employ 25 full-time team members and run virtually the same systems. All rooms are individually controlled and automated. This type of setup provides the highest amount of flexibility in its use and requires relatively low maintenance.

"One drawback, though, is the difficulty of dialing in the water/nutrient-cycle automation for the strains we run. Variations between strains may require different watering and nutrient schedules. Being able to read the plants and give them what they need on the fly is vastly important to the crops' success. In a nutshell, one nutrient and/or fertigation schedule may not work with every crop. This is dictated by each strain's health, maturity, environment and own unique needs.

"Additionally, it's paramount to ensure proper plant health prior to the flowering phase. A system like this needs all of the plants to be the same size and maturity to truly maximize results. If there are plants that aren't healthy or are less vigorous, you can experience a potential drag on yield."

His advice: "Never overdo it. Be able to read your plants, from water stress to light stress to nutrient deficiencies. When correcting these problems, never apply more nutrients, water, etc., than what the plant needs. Slowly adjust settings and doses, wait for the plants to respond, and remember to maintain the pH in your media. Take notes on each run and understand where your previous run's pitfalls may have occurred. This will pay off on your next run with potentially better yield and/or quality."

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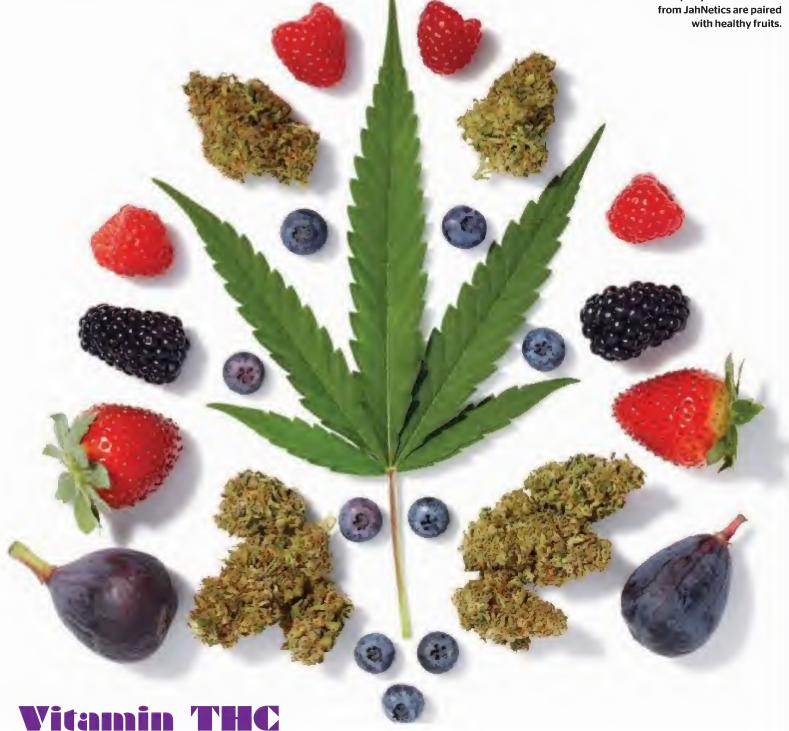


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Is marijuana a "superfood"? Should cannabinoids be considered essential nutrients? And if so, why do so many edibles come in the form of sugar-laden sweets? To find out, we tracked down a few infused-food professionals who are focused on transforming the herb into fuel for a healthy, vital lifestyle. By Elise McDonough

In 1753, a Scottish surgeon by the name of James Lind proved that scurvy could be effectively cured with citrus juice. By drinking plenty of lemonade over the course of a two-week-long treatment, Lind's patients would fully recover from the fatigue, sores and bleeding typically inflicted by this malady, which was formerly thought to stem from poor digestion and unclean waterwhen the real culprit was a simple deficiency in Vitamin C.

Until this discovery, the debilitating and often fatal disease limited the ability of seafaring vessels to travel long distances. But after Lind's discovery, sailors learned to prevent scurvy by packing barrels of lemon juice and fresh limes for their voyages. Today, the disease is so rare as to be almost unheard of, but British sailors retain the nickname "limeys," which dates back to their adoption of this practice.

Meanwhile, the term "superfood"-often derided as a marketing term with no legal or scientific basis-can be applied, according to the Macmillan Dictionary, to any food that's "considered to be very good for your health and that may even help some medical conditions." Thus, because Vitamin C is found in large quantities in citrus fruits, oranges, lemons and limes can all be considered superfoods.

You are what you eat, after all, and foods like blueberries, kale and sweet potatoes provide essential macro- and micronutrients that the human body requires for health. Superfoods confer increased vitality and allow humans to thrive, along with treating or preventing disease. For example, broccoli has widely touted anti-cancer properties; salmon provides Omega-3 fatty acids that protect your heart; and blueberries are packed with antioxidants

and phytoflavinoids that prevent inflammation and can help prevent heart disease and cancer.

Now imagine that all around the world, millions of people are suffering from a modern-day version of scurvy-that is, an easily treatable condition caused by a lack of essential nutrients. Only in this case, the missing dietary element is cannabis, or more specifically cannabinoids, a set of incredibly potent medicinal compounds primarily found in the marijuana plant. All humans have what's called an endocannabinoid system, composed of receptors that these cannabinoids fit into like a key fits a lock, and this system regulates many other vital systems in the body-including respiratory, circulatory and neurological. Which means that if the endocannabinoid system malfunctions, and cannabinoids are not brought into the body from external sources (by smoking, vaping or eating cannabis) to return it to balance, the negative effects can be severe, even life-threatening.

Dr. Ethan Russo first articulated this idea of "clinical endocannabinoid deficiency" (CECD) in a 2004 scientific paper, describing a condition that contributes to high levels of cancer and degenerative diseases such as Alzheimer's, inflammatory bowel disease, multiple sclerosis, Parkinson's and rheumatoid arthritis. With the research to back it up, Russo basically proposed that a lack of cannabis could be the underlying cause of these and many other potentially deadly conditions.

Now imagine that the preventative cure for all of these painful, heartbreaking diseases could lie in the cannabis plant being widely used as a dietary supplement, much as lemons and limes ended scurvy over 200 years ago.

After all, if CECD is caused when the body doesn't produce enough endogenous cannabinoids on its own, and this deficiency can be corrected by adding cannabis from herbal sources, then such a simple dietary supplement could save countless lives and relieve immeasurable suffering. And so, much like James Lind and his studies into the effect of Vitamin C on scurvy, Dr. Russo is currently pioneering research into one of the least understood, but probably most important, superfoods on the planet.

One significant difference in their research, however: Oranges and limes aren't a Schedule I controlled substance that can get you thrown in prison for years. That legal status has been a serious impediment to proper research on cannabis's nutritional and medicinal value, but it hasn't stopped other physicians from picking up on Russo's lead. An outspoken advocate for juicing raw cannabis leaves as a dietary supplement, Dr. William Courtney popularized the practice among growers in Northern California. Currently in the midst of setting up a juicing retreat center in the Caribbean, Courtney writes that "akin to essential fatty acids and essential amino acids, there needs to be minimum daily requirements established to guide worldwide adoption of raw cannabis as the single most important dietary element."



While juicing raw cannabis doesn't have any psychoactive effects, it does allow for much of the plant's medicinal benefits to be absorbed by the body. However, for many patients, obtaining an adequate amount of fresh cannabis leaves for juicing can be difficult. So Dr. Courtney and a growing chorus of activists continue to agitate for the right to use cannabis in any amount necessary, much as with any other vegetable. Because along with its botanical cousin, hemp, cannabis is a superfood in its own right, conferring tremendous health benefits, anti-inflammatory action, and the power to prevent and treat diseases, along with many relaxing and rejuvenating qualities. In this sense, we can consider cannabis as another tool in our arsenal-along with blue-green algae, maca, yacon, ginseng, cacao, matcha and other health-positive superfoods-to help us reach our full, vibrant, active potential.

Fortunately, though all too many cannabis-infused edibles manufacturers continue to flood the market with sugary sweets, an increasing number of progressive companies recognize the plant's unique medicinal benefits, and they have devoted themselves to creating infused foods that combine cannabis with other superfood ingredients for maximum healing and supreme vitality.

Heather Hoffman, co-founder and chief medical officer at Pura Vida Health, is a radiant young woman who studied holistic nutrition at the Canadian Institute of Natural Nutrition. Upon meeting her, it's hard to imagine that she struggled mightily with epilepsy throughout her youth, but the condition is currently nonexistent. "Since I tried cannabis, I haven't had a seizure," Heather tells me. "It's been five years, and I consider myself cured."

Pura Vida creates power bars and granolas that pair ganja with other healthful ingredients, including papaya extract, oats and almonds—a blend that Hoffman believes "helps the body better utilize cannabis." Available in more than 100 California dispensaries, Pura Vida products use coconut oil, which "acts as a platform for cannabis to help the body absorb it, so people report getting higher quicker and feeling more of an impact."

Hoffman says that while it can be tough to get healthy options on the shelves of dispensaries, "if we want cannabis to be what it truly is—a healing medicine—then we have a responsibility to actually do that." Greater education is necessary to help patients understand that nutritious cannabis-infused foods exist. "It's best to not give cancer patients a chocolate bar," Hoffman explains. "Corn syrup and sugars aren't medicine."

When using cannabis as medicine, especially for patients fighting cancer, it's important to remember that sugar feeds cancerous growth. Eschewing refined sweeteners and processed ingredients and opting instead to combine cannabis with other nutrient-dense whole foods, additional herbs and supplements, Pura Vida creates edibles designed to promote specific effects like "energy boost" or "super sleep."

It's a viewpoint shared by Ezra Malmuth, the founder of the Sababa Snacks Collective and a graduate of the culinary nutrition program at Johnson & Wales University. While assisting a friend's father who was suffering from Stage IV cancer, Malmuth found that a lot of the cannabis edibles his friend's father was eating "were not health-conscious, had a lot of sugar and calories, and didn't taste great." Determined to find a better way, he begin combining superfood ingredients into "clusters," bite-size morsels of dried fruit, nuts, spices and herbs.

"It was like an oatmeal cookie meets a



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Sababa Snacks (now called Atlas Edibles) went on to capture a second-place award for their Caramel Cashew Apricot Clusters at the 2016 NorCal Cannabis Cup, a win that Malmuth attributes to "people who understand the value of wholesome food being attracted to this product." When selecting ingredients to pair with the 25 milligram dose of THC per cluster, he chose to create "an inherent offering to the body," mixing oats and nuts to provide protein and dried fruit to provide carbohydrates, resulting in a combination of macronutrients that supports the metabolic process. Favored as an athletic-recovery snack, these clusters help long-distance runners "eliminate the inflammatory response to exercise," Malmuth says, "while optimizing performance."

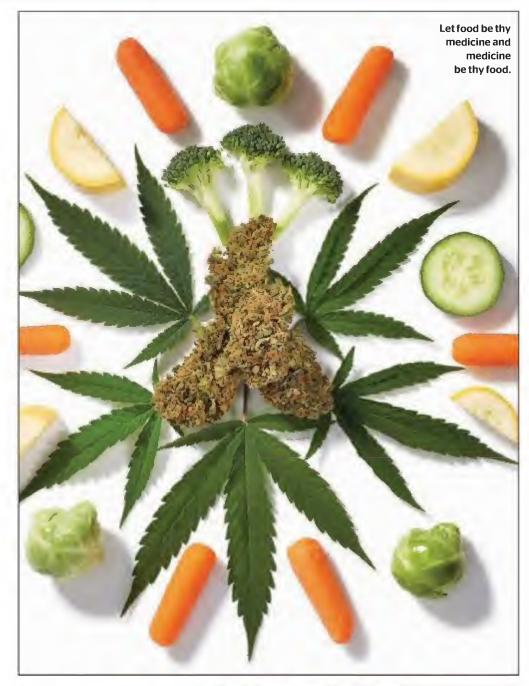
Joseph Winke, founder of Jambo Superfoods, has always treated cannabis as an essential vitamin, mixing it into new versions of traditional healing foods like the company's best-selling Daily Ritual, a unique blend of THC combined with medium-chain triglyceride (MCT) oil and

We can consider cannabis as another tool in our arsenal along with maca, ginseng & cacao—to help us reach our full, vibrant, active potential.

ghee from grass-fed cows. The resulting super-butter can be enjoyed with morning coffee in the Bulletproof Coffee style, or simply spread onto bread or used in cooking. Winke champions the use of MCT oil, a type of coconut oil that is liquid at room temperature, explaining that this form of fat is especially bioavailable: "Your body is able to easily process these fats, so you get a really good uptake," which makes the THC more effective.

"We use actual food that the body knows how to metabolize," Winke explains, "not high-fructose corn syrup, artificial flavoring or whey-protein isolates... Humans perform better when we have an abundance of cannabinoids" much as we perform better when we have Vitamin C, antioxidants and essential amino acids available in our diets.

So remember, when we fight to free the cannabis plant, we're fighting for our health and our lives! \leq



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Three Tasty Superfood Cannabis Recipes From Andie Leon

After struggling with a destructive eating disorder, chef Andie Leon was able to restore her body to health by using cannabis and embracing an organic, vegan diet rich in superfoods. Currently developing products at Cheef Naturals, Leon is dedicated to helping more people realize vital health and combat disease with cannabis and a proper diet.

Quinoa With Ganja Guacamole and Super Salad

Made with fresh cannabis leaves, this salad is full of antioxidants and dosed with THC through an easy-to-use, cannabis-infused olive oil in the dressing.

1 cup quinoa 2 tbsp. hemp seeds 2 tbsp. flax seeds ¼ cup cannabis-infused olive oil

Rinse the quinoa thoroughly until the water runs clear. Bring 1¼ cups of water to a boil and add the quinoa. Cover and simmer until the water is completely absorbed, about 15 to 20 minutes. Add the seeds and cannabis olive oil and mix thoroughly.

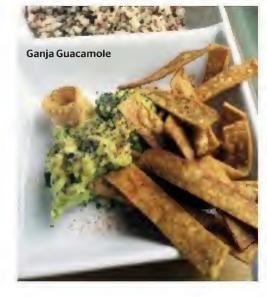
Ganja Guacamole

2 avocados

3 fresh cannabis leaves, finely chopped Dash of chili powder or cayenne 1 tbsp. organic Greek yogurt (optional) Juice of one lime 1 tbsp. supergreens or maca (optional superfood supplement) 1 tsp. Himalayan salt 4 organic corn tortillas Cannabis-infused olive oil for frying

Smash all of the ingredients together in a large bowl using the back of a fork. (You can also blend in a food processor or blender using the pulse button a few times.) Cut the corn tortillas into strips and fry them in the cannabis-infused olive oil until crispy. Drain on a paper towel and serve the chips with dip!





Cacao Cake With Guava Dulce

Cacao ceremonies are celebrated all over the world, dating back to ancient cultures like the Aztecs and Mayans. This cacao cake harnesses the power of this superfood ingredient, unlike a regular brownie packed with unhealthy sweeteners and fats. Leon adds roasted chili and cinnamon to this easy cake recipe to create a sophisticated flavor along with synergistic weight-loss benefits.

1 chili pepper, roasted and crumbled into powder 1 cup raw cacao 3 cups organic flour 11/2 cup organic coconut sugar 1 tsp. Himalayan salt 1 tsp. cinnamon 1/2 tsp. baking powder 1/2 tsp. baking soda 3 large organic eggs 1 tsp. organic vanilla 1 cup organic milk (from a cow, goat or hemp plant) 1/3 cup cannabis-infused coconut oil 1 tsp. mushroom powder (optional superfood supplement such as Lion's Mane for focus, memory and nerve health)



Preheat the oven to 350°F. Grease a 9" x 9" brownie tray or muffin pan. Mix all of the dry ingredients together in a large bowl. Make a well in the middle and add the wet ingredients, then beat until well combined. Pour into a greased baking tray or muffin pan. Tap to let out the air bubbles. Bake for 40 minutes, or until a toothpick comes out clean. Serve the cacao cake with a dollop of organic Greek yogurt, guava dulce (see below) and sprinkles of cacao nibs.

Guava Dulce

1 lb. guava 1 cup coconut sugar

Cover the guava and sugar in filtered water in a medium-size pot. Bring to a boil, then lower the heat and simmer until soft. Puree the mixture in a food processor or blender before straining through a colander for a smooth paste.

Find Andie Leon's products at cheefnaturals. com or connect with her through superfoodchef. wordpress.com

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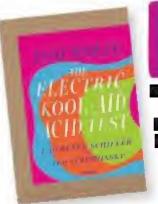
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The Electric Kool-Aid Acid Test, published at the dawn of the hippie era, inspired psychonauts around the world. Now it's available again bigger, better and trippier than ever! Story by Samantha Nicholas, images courtesy of TASCHEN

DR ANA





was in high school when The Electric Kool-Aid Acid Test was published in 1968. However, I didn't read it until the mid-'70s—but I definitely member the impact it had.

We were on a family vacation in P70. Every time we pulled into a rest top on the interstate, scores of garshly painted vehicles dotted the parking lot, invariably emblazoned with psychedelic doodlings. Everyone who drove in those

cars and vans that summer—a VW minibus was the status ride—had read *The Electric Kool-Aid Acid Test*, and everyone wanted to emulate the adventures of the Merry Pranksters, as chronicled by author Tom Wolfe.

Who were the Pranksters? A band of untamed spirits led by the late Ken Kesey (author of *One Flew Over the Cuckoo's Nest* and *Sometimes a Great Notion*), they traveled across America in a wildly painted bus named "Further," dropping LSD prolifically in an unstructured but highly motivated quest for transcendence. Their journey, which Wolfe observed firsthand, arguably spawned the hippie movement. In fact, The *New York Times* called *Acid Test* the "essential" book on hippies.

My dad, a former captain in the US Marine Corps, was appalled by the jamboree of freaks taking a break from the road around us, with their long hair, beards, beads and costumes of every imaginable design. "What is happening to this country?" he wondered.

Well, Dad, whatever it was, it happened. But ironically, the hippie movement—which was followed by Watergate, Reagan's War on Drugs, AIDS, 9/11, the Great Recession and the

(Opposite page) The multicolored Merry Pranksters' modified 1939 International Harvester school bus, nicknamed "Further," gleams in front of the Harriet Street warehouse after a thorough repainting before the Acid Test Graduation. Purchased in 1964 for \$1.500, the bus was first used to ferry the Pranksters across the country to the New York World's Fair. San Francisco, 1966.

rise of the billionaire politician/asshole—turned out to be a high point for America. Of course, it hasn't been all bad since then, though it may seem that way at times.

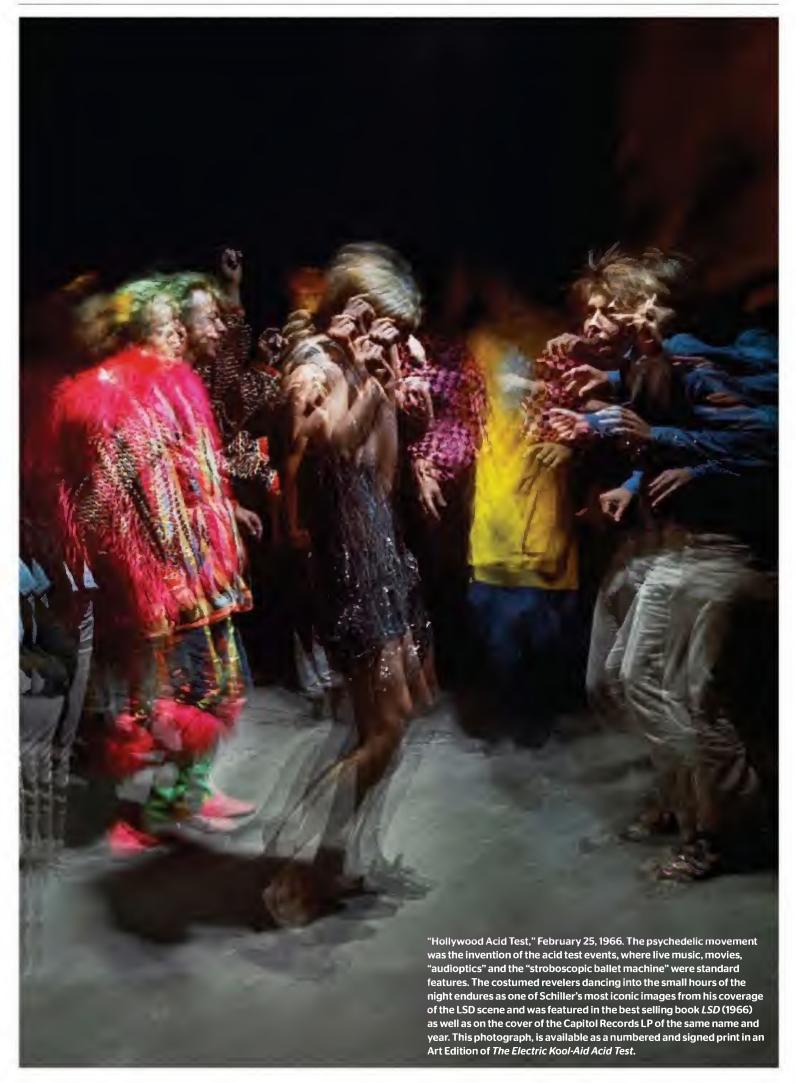
Thankfully, the passing of years hasn't diminished the impact of *The Electric Kool-Aid Acid Test*. For those who have dropped acid—or are contemplating a trip—the book is staggeringly accurate about the experience. But the pure, unadulterated freedom that the Merry Pranksters practiced is the real hook. Kesey and company's explorations and revelations electrified a generation nearly a half-century ago—and they can still have the same effect today.

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(Above) The Hollywood Acid Test was held at midnight on February 25, 1966, in a small film studio near the Sunset Strip, just down the block from photographer Lawrence Schiller's studio. The addition of dry ice to the LSD-spiked Kool-Aid was an effect that Kesey used as early as 1960. (Below) A first-timer in the throes of a bad trip. "I experienced the desire to die, but not actual death," she later said, "very strongly the desire to rip my skin off and pull my hair out and pull my face off." As the first national photojournalist to capture the American acid scene from the inside, Lawrence Schiller began with a single contact in Berkeley, California, and built a large network of young, receptive subjects who allowed him to document their private experiences with LSD. Hollywood, 1966





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(Above left) The Acid Test Graduation, Halloween night, 1966, held at the Merry Pranksters' warehouse/headquarters on Harriet Street in San Francisco's Skid Row area. All eyes are on Ken Kesey (spotlight shining on his bare back) as he pulls off his biggest prank of all: graduating from acid. (Above right) Pages from Ken Kesey's jail journals, 1967. Rarities from the era including manuscripts, handbills, and magazines are reproduced in the TASCHEN edition of Wolfe's counterculture classic. (Left) Tom Wolfe with Jerry Garcia and Grateful Dead manager Rock Scully, at the corner of Haight and Ashbury, San Francisco, 1966. Wolfe arrived from New York to start work on the story in October of that year.

collectors' edition, signed by Tom Wolfe, has just been released by Taschen Books. Published in traditional letterpress, it includes facsimile reproductions of Wolfe's manuscript pages, as well as Ken Kesey's jailhouse journals, handbills and underground magazines of the period.

Interweaving the prose and ephemera are photographic essays by Lawrence Schiller, whose coverage of the acid scene for *Life* magazine helped inspire Wolfe to write his story, and Ted Streshinsky, who accompanied Wolfe while reporting for the *New York Herald Tribune*.

These photographs—together with those of poet Allen Ginsberg and other photographers who covered the scene—paint a vivid picture of the countercultural world that Wolfe's book chronicles: acid parties near "Capsule Corner" in Hollywood; the hippiefilled streets of Haight-Ashbury; the abandoned pie factory that the Pranksters called home; and the infamous Acid Tests, Kool-Aid and all.

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BUT NONE HAVE HAD THE LONGEVITY OF PAMELA ANDERSON. SHE POSED FOR PLAYBOY IN 1989, THEN WAS WIDELY "NOTICED" IN 1991 WHEN SHE TOOK THE ROLE OF LISA, THE "TOOL TIME" GIRL, ON THE HIT TV SERIES *HOME IMPROVEMENT*. AS C.J. PARKER IN *BAYWATCH*, ANDERSON BECAME AN INTERNATIONAL STAR, THE LIFEGUARD WHOM MILLIONS OF MEN DREAMED WOULD COME TO THEIR RESCUE. OVER THE COURSE OF HER CAREER, SHE'S ALSO APPEARED ON THE COVER OF *PLAYBOY* 15 TIMES.

THERE'S A WIDELY HELD PERCEPTION THAT A BOMBSHELL MUST BE EMPTY-HEADED. BUT AS ANDER-SON SAYS, "DON'T UNDERESTIMATE ME." SHE USES HER MASSIVE CELEBRITY TO ENDORSE AND PROMOTE A WIDE RANGE OF SOCIAL ISSUES, FROM VEGANISM AND ANIMAL RIGHTS TO SPEAKING OUT AGAINST THE SCOURGES OF SEX TRAFFICKING, DOMESTIC ABUSE AND INTERNET PORN ADDICTION. IN A SEPTEMBER WALL STREET JOURNAL ESSAY PROMPTED BY THE LATEST SEXTING SCANDAL OF FORMER NEW YORK CONGRESS-MAN ANTHONY WEINER, ANDERSON DENOUNCED POR-NOGRAPHY AS "A BORING, WASTEFUL AND DEAD-END OUTLET FOR PEOPLE TOO LAZY TO REAP THE AMPLE REWARDS OF HEALTHY SEXUALITY."

PAM SAT DOWN WITH *HIGH TIMES* TO TALK ABOUT THE NATURE OF FAME, BEAUTY, PARENTING AND OTHER ISSUES. AND WHILE SHE DOESN'T USE CANNABIS HER-SELF, SHE CLEARLY SEES THE FOLLY OF KEEPING THE PLANT ILLEGAL.

Your era as a so-called "sex goddess" has lasted over two decades. What do you think accounts for that?

I think I was fortunate to be around in the last age of mystery. There is so much access these days. The internet has changed everything; everyone is famous. Everyone wants to be seen—seen too much. It's a dilution of sexy people everywhere.

Often, *High Times* gets negative comments for running pictures of beautiful women holding cannabis plants. And often, these arguments seem to be anti-beauty in nature, as opposed to being concerned about sexism. What's your take on society's frequent criticism of sexy images?

I think a beautiful girl is a beautiful girl. "Sexy" comes from within. I think it's all gone a bit off course: Internet pornography has become an addiction, destroying lives and loving relationships. It's frightening that people don't see this undercurrent of madness stoking the fires of perversion. Desensitization makes lousy lovers.

I miss sexy. Playboy was sexy... innocent. I know your question was about sexism, but we all have a role to play in this. I'm looking at mine. I know it seems odd coming from me—stolen sex tape and all—but this is what keeps me up at night. I'm worried the world will forget how to make love. And I want us to somehow, freely, think together. Let's keep each other happy, healthy and safe—respected and love each other well.

Does being considered beautiful get tiresome, as if you have a responsibility to your looks, making sure you look your best at all times?

I've never thought my looks were my strong point. Maybe that makes getting older easier. Hah!

Every woman always wants to look her best. But my favorite time is when I can let my freckles out—with leftover mascara and smudgy black from the night before.

Bedhead... I guess that's my "look." My mom is always telling me to comb my hair.

In this issue, we're focusing on marijuana's benefits to fitness. Is cannabis part of a healthy lifestyle for you?

I actually don't smoke. I've tried on occasion over my lifetime. I'm looking forward for it to be safely regulated and legalized. I support the decriminalization of marijuana; I know it has helped many people. And nobody needs to go to jail for marijuana. I'm glad Obama pardoned a lot of people lately for petty offenses.

How have you addressed the issue of cannabis with your kids as they matured?

I told my kids they were allergic to smoke... partially true! Moderation is always key. Or if that's not a word in your vocabulary: abstinence.



108 The High Times Interview

That's with any mind-altering substance. Self-medication is an issue to be concerned with.

I try to talk to my boys about everything, so we get through any wounds together. It's okay to feel emotions. Boys really need to hear that.

What do you think accounts for America's resistance to legalization?

People are afraid. They don't want change. It's hard to understand the legalization of a "drug" you were told not to do your whole life. I think it will solve a lot of problems to legalize. It takes the "thrill" out of it. Some will do less; some will do more. But it will be less dangerous.

Americans seem to be in the Stone Age as far as their diets are concerned. What's your most persuasive argument for being a vegan?

I don't need to hurt any being to feed myself.

Sometimes when animals are abused, people seem to care more than they do about human suffering. What motivates that in human beings?

Is that true? I think people who care... just care.

What issue or issues make you angriest?

Sometimes, the reality show of politics in America at the moment. It's embarrassing—we just have to get through it. I'm glad a woman will be president of the United States. That alone will help the world.

What motivates your compassion?

I think people who have faced adversity have empathy. I believe that love heals. An act of kindness, a choice we make choices every day. If we can think of others in all of our actions, we are living a sensual life.

We're hoping that Leonard



Peltier gets clemency. You've become a good friend of his. What light can you shed on Leonard as a person and his plight?

His health is not good. And he should be set free—it would send a tremendous message. I hope Obama grants Leonard clemency. This is the time when he could. Go to *freepeltier.org* and sign the petition. Watch or listen to "Freedom" by Rage Against the Machine.

Are you an optimistic person? Does the state of the world depress you, or do you feel humans can do better?

I'm a mother... I worry. I worry about climate change, the oceans, endangered species. I work to help victims of domestic abuse and sex trafficking. There's a sickness surrounding pornography and people enslaved by the sex industry.

We have to learn how to make love again. It will save us.

Your relationships with men have sometimes been less than what you'd hope they would be. Are relationships hard for you? If so, why is that?

I don't tolerate abuse, but I see the best in people—even people who refuse to see the best in themselves. I leave only when there are no other options. I believe everyone deserves love—even a second chance. We're all human, full of flaws. Just never put yourself in danger. I saw you on Court TV during the trial where a movie company tried to sue you. You were awesome! You took their attorney apart and won the case. Are you a combative person? What gets under your skin?

I get misunderstood a lot, underestimated at times. Never mistake my kindness for weakness.

What do you want your legacy to be?

Kindness is the mightiest force in the world. Sensuality is a sexy kindness. I hope I'm a part of the sensual revolution that holds us together, instead of this bizarre divisiveness tearing loved ones apart. *

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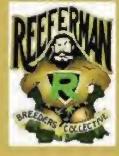
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Danko Tip: Adding compost will loosen clay soil and improve the ability of sandy soil to retain water and nutrients.



SUBJECT Flowering Under Fluorescents FROM Raymond M.

I'm just wondering if I could use a T5 fluorescent light to flower a pot plant? I have my plant vegetating under one of these now, and I'd like to know whether I can just keep it there for the entire grow cycle, or do I need to invest in a different lighting system?

Dear Raymond,

Yes, you can use a T5 light to flower a pot plant. The benefit of using this type of lighting is the lack of heat it generates. Because fluorescents are not superwarm, you can place your plant tops within just a few inches of the light. The disadvantages of flowering under fluorescent lights are the lack of intensity and penetration. This makes the "screen of green" (ScrOG) method of growing perfect for fluorescents, as you can train the flowering tops to create a level canopy close enough to the light.

My recommendation, however, is to grow under high-intensity discharge (HID) lighting such as high-pressure sodium (HPS) or metal halide (MH) lamps. Although they run much hotter and use more electricity, they produce plenty of light for plants to thrive and build thicker flowers. If you're interested in a bigger yield and can handle the added heat, HID lighting is ideal for indoor marijuana production. SUBJECT **Green Growth** FROM: **Nathan F.**

I'm using coco as my medium to grow in, but I notice that the top layer of the mix is going green. Is that something I should be concerned about—and, if so, how can I stop it?

Dear Nathan,

The surface of your medium is green because it's covered with algae. This fungus grows where water meets light and can definitely cause problems for your plant (besides being gross and ugly to look at). Cover your growing medium with something waterproof and opaque; white plastic is best, as it helps to reflect



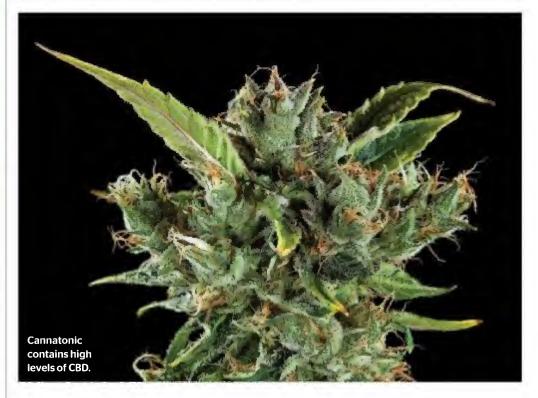
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114 Dear Danko

Danko Tip: Seek organic pest-control alternatives like neem oil and predator insects before you consider the ill-advised use of harsh commercial chemicals.



some light back onto your lower growth. If you keep the light from reaching the wet medium, you will rid yourself of your algae issues.

SUBJECT: Got CBD? FROM: Zion G.

My wife has a neurological disease called dystonia that actually causes her body to become almost "frozen." She suffers from a lot of muscle pain. We live in Israel and have a medical approval to get about 40 grams of marijuana per month, but it's always a different strain, with different effects and potency. I've read some articles that say CBD is a very good substance for her situation. Is there a strain that has more CBD?

Dear Zion,

I'm sorry to hear about your wife's condition. Thankfully, you live in a country where you can get her the medicine she needs to help treat her dystonia. The first thing you should do is to request high-CBD cannabis from your medical marijuana provider. If that's not possible, then you should consider growing your own. The cannabinoid known as CBD (cannabidiol) has been shown to help with dystonia, but I highly recommend wholeplant medicine—meaning cannabis rich in CBD, but also containing some THC and other essential oils.

A few strains that contain higher levels of CBD are Cannatonic, ACDC, Harlequin and Ringo's Gift. Check out *projectcbd. org* and *cbdcrew.org* for a ton of information on what CBD is, how to use it and where to find the seeds.

SUBJECT: Slow and Low FROM: Adam M. -

🍋 My plants are five weeks from seed. I'm a noob, by the way, as this is only my second grow. The smallest plant is an OG Kush, and the others are Blue Cheese. I'm vegging under a 300-watt Viparspectra LED. In week two from seed, I transplanted my plants from a pot that was about twice the size of a yogurt container; then I transplanted them again one week later into 16-liter smart pots. A week after that, I topped all of the plants. The new growth from the topping has really flourished, but the overall height of my plants is pretty bad-they haven't grown much in the past week. I'm also worried that there's a large number of small leaves on them. I know I should be using an intake and exhaust fan, but they're in the post and I'm waiting for them to arrive. Basically, what I want to know is this: Will my plants eventually start growing well again, or are they stuck being that short? Or could they shoot up in height when switched to flowering?

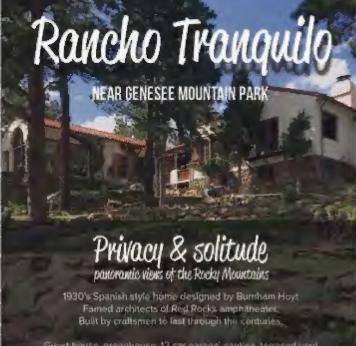
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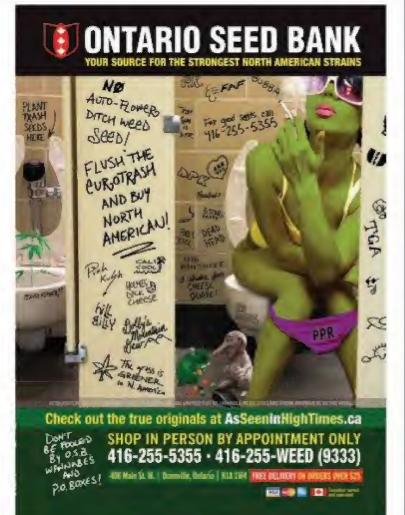
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116 Dear Danko

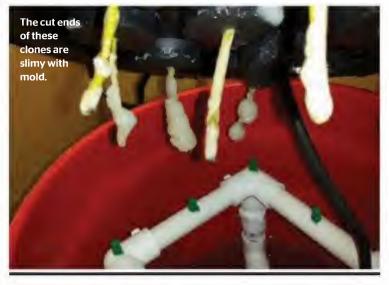
High Times January 2017

Danko Tip: Prop up sagging branches and plants with sticks or trellising to ensure they're getting enough light at the canopy level.

Dear Adam,

It's a bit hard to tell why your plants aren't growing properly. I think perhaps they aren't getting enough light. It's also possible that they'll bounce back soon, because plants go through a recovery process after transplantation that can take up to a week, depending on how gently they were treated.

My advice would be to keep your plants in the vegetative stage and lower the light; then you should see a return to healthy growth. If not, you must re-diagnose the problem and act accordingly. Plants do tend to stretch for the first couple of weeks of flowering, but you can't count on them to do so if they're not growing during veg.



SUBJECT: Moldy Clones FROM: Tom S.

I'm having a hard time with my clones. I'm using 2 gallons of distilled water with a little bit of Superthrive, and after eight to 10 days, I get this white mucus on the cut ends. The water temperature is 75°F to 78°F, and I'm running the misting pump 24 hours a day. I need help! This is my second try, and I lost them all the first time around due to this ugly fungus.

Dear Tom,

The water temperature in your cloner is too high. You need to bring the temperature down to between 65°F and 70°F, with 65°F being ideal. If the temperature is too low, it will shock your plants; too high and the dissolved oxygen levels decrease dramatically, so that pythium (mold) can and will become a serious issue.

Lowering the temperature of your nutrient solution can be done in a number of ways. Some cloners come with the pump on the outside, and this can reduce heat. Sometimes, moving a cloner out of a warm growroom under HID lighting and into a cooler space with a fluorescent or LED light can cool the solution as well. Painting a dark-colored reservoir with a lighter color on the outside is another way to decrease the amount of heat absorbed.

You may have to bite the bullet and invest some money in a water chiller. They come in a variety of sizes to handle different reservoirs, so you have to find the right one that allows you to

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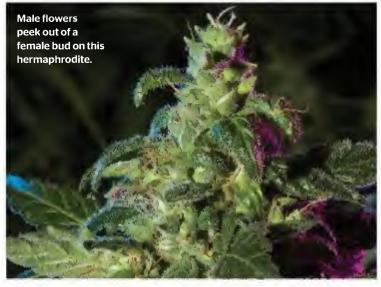


118 Dear Danko

Danko Tip: Reducing heat also diminishes many insects' ability to reproduce very quickly.

dial in the temperature to exactly where you want it on the digital display.

A cheap but temporary alternative is to freeze a 2-liter bottle of water and chuck it into your reservoir. Bear in mind that this is not a long-term solution, but rather a relatively crude and inaccurate way to get cooler nutrient-solution temperatures over the short term.



SUBJECT: Finding Hermaphrodites FROM: Marcel

I'm a newbie on my second attempt at growing my own. I've read up on just about everything I can find online regarding growing cannabis, but one thing I can never find is information about the early signs that a plant may have hermied. There's plenty of information online that shows when it's obvious, but is there anything that shows a beginning grower such as myself the early warning signs, or does one just have to monitor closely every day until a pollen sac is visible? I'm curious because during my last attempt, all four plants hermied. They were into the fifth week of the 12/12-hour light cycle, and it looked like everything was going great—until I found the pollen sac. But what really shocked me was how many pollen sacs there were that I didn't even see until it came time to destroy the plants.

This time around, I'm growing only two plants, and so far things appear to be going all right. I don't know if I'm just being paranoid, but then again it never hurts to ask an expert. I look forward to hearing any advice you may have.

Dear Marcel,

The only way to spot the early signs of hermaphroditism is to practice eternal vigilance. Get yourself a loupe or some kind of magnifying device and check out your flowering plants daily. (This will also help you notice if there are any issues with pests or mold.) Look for tiny yellow spikes poking out of the flowers and at the nodes where the leaves meet the stem.

You then have to make the decision whether to try to pluck them out as you find them, or trash the plants and start over with more stable genetics. My advice is the latter, because that way you'll avoid seeding out your entire garden. Hopefully, lab testing will soon be available that can "root out" hermies early in their development.





120 Dear Danko

Danko Tip. An oscillating fan placed at canopy level helps keep air near plants from getting stagnant.

SUBJECT **Emulsifying Neem Oil** FROM **BBQ Billy**

I live in a fairly cold area, and my neem oil is almost solid at times and it stays separate when I try to mix it into my water. No matter how many times I shake up the sprayer bottle, I can still see the particulates, and it never seems to mix together the way it should. We have issues with mites sometimes, and I need to use the spray as a foliar preventative and also for occasional flare-ups in mite populations. Can you give me some tips on how to properly emulsify my neem oil?



Dear Billy,

First, try to find pure neem-seed oil. Many of the brands on the market these days aren't quite the real deal, because the oil is diluted with other products. Dyna-Gro produces a great neem oil that's natural and free of additives. As for mixing, you need to use an emulsifier, such as a silica additive or horticultural soap, before mixing your oil with warm water. Pour 1½ teaspoons of neem oil into a cup and add a half-teaspoon of emulsifier. Dyna-Gro also makes an excellent product for this called Pro-Tekt, but you can even use dish soap in a pinch as long as it's natural.

After some stirring, add the mixture of oil and emulsifier to a quart of warm water (not hot, but around 75°F to 80°F). Some people use a blender to get it smooth, but you can just shake the solution inside the bottle as well. Be sure to spray it on the tops and undersides of your leaves for full coverage.

SUBJECT: Proper Air Temps FROM: Terry in SC

I'm planning to grow 10 plants in a 12' × 12' room. What would be the ideal temperature to maintain? Also, does the temp remain the same during the vegetative and flowering stages?

Dear Terry,

The "daytime" air temperature in your growroom (meaning when the lights are on) should be kept between 68°F and 78°F. Your plants will tolerate up to 80°F or so, but any higher and their growth rates dwindle. Plants that are supplemented with CO_2 gas, as well as clones and seedlings, can withstand slightly higher temps as well.

The "nighttime" air temperature (i.e., when your lights are off) should be 60° F to 70° F. Keep in mind that the air temperature at leaf level can be considerably higher than the rest of the room. At the least, I'd recommend getting a digital thermometer that records the highs and lows in its memory so that you know what's going on in the room when you're not there. Also, avoid day-to-night fluctuations of more than 10° F to 15° F either way, and maintain as consistent an environment as possible for the utmost success. $\frac{1}{2}$



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124 Psychedelicatessen





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Place the dressing ingredients in a small bowl and whisk to combine. Toss the salad, then serve it with the dressing on the side.



FOOD FOR HOLE SAL

Mixed Greens, Mango and Pineapple with Cannabis-Curry Vinaigrette

By Robyn Griggs Lawrence

With this fresh, bright salad, Scott Durrah wants you to take responsibility for your own dose, since you're the only one who knows your tolerance. Scott's recipe allows you to feed people with varying tolerance levels by serving the vinaigrette (made with a quarter-cup of cannabis-infused olive oil) on the side. Diners can control the dosage by sprinkling on the dressing with a light or heavy hand. Also, Vitamin C-rich mangoes have high levels of myrcene, which are the dominant terpenes in cannabis as well. Because of this, researchers are studying whether mangoes' reputation for strengthening and lengthening cannabis's euphoric effects is scientifically true. Our advice? Eat the mango as if it were true, and dress the salad lightly the first time you try it. (Also, curry-powder blends tend to vary. Start out using less than this recipe calls for and taste before you add more.)

The Cannabis Kitchen Cookbook

Integrate cannabis into a healthy diet with *The Cannabis Kitchen Cookbook* by Robyn Griggs Lawrence, which teaches home chefs how to properly dose their meals. *cannabiskitchencookbook.com* OVY KENDAL ATCHISON. THE CANNABIS KITCHEN COOKBOOK. BY ROBYN GRIGGS LAWRENCE (SKYHORSE 2015).



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Flavor of the Month

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Using natural ingredients complemented by a CO₂-extraction oil, VERT Edibles seeks "to bridge the gap between medicine and food with a focus on familiar flavors," says executive chef Melissa Parks. "VERT is built on a foundation of precision production methodologies and natural ingredients aimed toward providing the maximum health benefits in each decadent, bite-size treat."

A recognized authority on preventative healing through cuisine, Parks is a co-author of *Herb: Mastering the Art of Cooking With Cannabis* and a graduate of Le Cordon Bleu College of Culinary Arts in Minneapolis, where she specialized in baking pastries.

VERT Edibles will be launching in the Nevada cannabis marketplace with its Bites cookie line, including Key Lime Bites, Chocolate MMMint Bites, PB&J Bites and Berry Bombs. *vertedibles.com*

They Put Pot in What Now?!

Cannabis Cocktail Mixers

Le Herbe is betting on the future of cannabis cocktails with Batch #55, a cannabis-infused mixer that can simply be poured on the rocks, served as shooters and shots, or mixed with top-shelf spirits for the perfect pot-infused potion. Along with their infused coffee and coconut-water beverages, Le Herbe will offer these cocktail mixers in seasonal holiday blends featuring locally sourced organic ingredients. *leherbe.com*

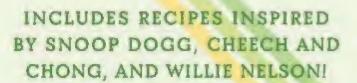


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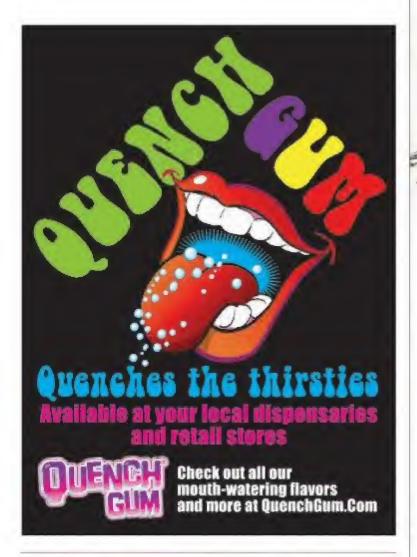
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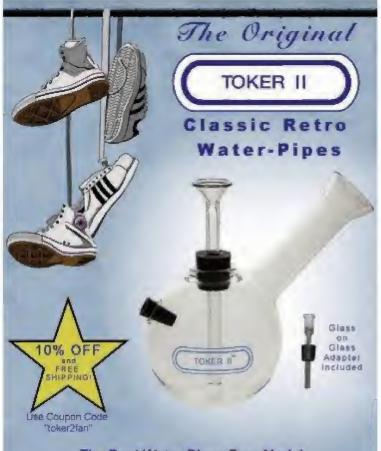
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128 Ask Dr. Mitch

Weeding Truth Opiate addiction, seizures, cannabidivarin and booze.

Got a question for Dr. Mitch? Email him at 420research@gmail.com.

Can we use marijuana to solve this country's opiate-addiction epidemic?

Poppy

Hi Poppy, Many former opiate addicts have used the plant to help them stay off hard drugs. We don't yet have data from randomized clinical trials where some folks get the plant and others don't, but what's an opiate addict got to lose in the meantime? If you turn to cannabis and kick, you've made huge progress—and if you turn to cannabis and can't kick, you're in the same position as before. Fans of the disease model will send me angry e-mails, but I think it's worth giving this approach a try.

Can you explain why we need CBD for seizure treatment? *Sirius Green*

Hello Sirius,

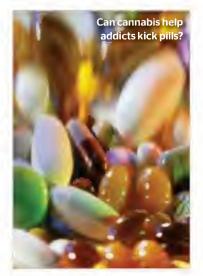
There are other treatments, but one-third of epileptics have a treatment-resistant form, so standard medications aren't doing the trick. Research shows that CBD can decrease seizures by more than 35 percent, and in some patients it can bring them down over 90 percent. CBD is also supremely safe, with essentially no side effects. What more could we want?

What's cannabidivarin?

A Person

Yo AP,

Yet another chemical compound unique to the marijuana plant, cannabidivarin



appears to be a lot like cannabidiol (CBD): It's not psychoactive, so it has no associated changes in mood, and it shows a lot of potential for fighting seizures and inflammation. Indeed, it just might end up as the hip new pharmaceutical component of the plant once CBD becomes old hat.

I've heard that alcohol is the real "gateway drug." Any truth to that?

Ima Steppingstone

Hi Ima,

Research confirms that those who use hard drugs started drinking alcohol before they ever tried cannabis. Also, those who drank by sixth grade were the most likely to try hard drugs and to use them more often. So keeping little kids away from alcohol definitely seems more important than telling them lies about cannabis. \clubsuit

Dr. Mitch Earleywine, PhD, is the author of Understanding Marijuana and The Parents' Guide to Marijuana.

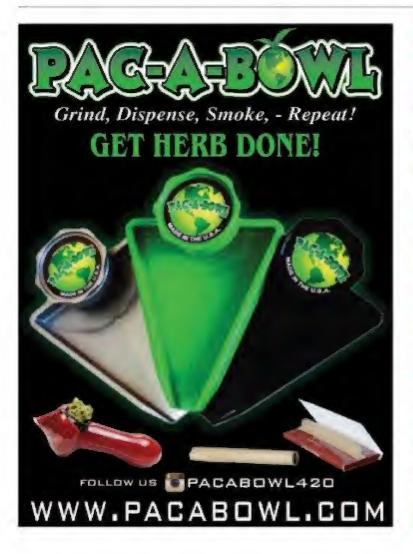
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4 of a Kind continued from page 86

Queen Creek, Arizona, a suburb of Phoenix.

"Everybody in this state is poised for rec," Carpenter says. "When you talk to local law enforcement, they know it's coming. When you talk to the regulatory bodies, they expect it to happen. There's going to be a big shift—and we'll be ready."

The roots of the Cannabiotix crew are in California. Neema and JB, the owners, are experienced West Coast growers who saw their genetics score big-time prior to arriving on the Vegas scene. Their Orange Crush (24.4 percent THC) won first prize at the 2015 NorCal Medical Cannabis Cup for Best Hybrid Flower, while Thin Mint Cookies (Cherry Pie x Durban Poison) won top honors in the same category at the 2014 Nor-Cal Cup. And at the Jamaica World Cup last November, their White Walker OG won for Best Indica.

"In California, we felt there was a lot of additive-grown cannabis heavily distributed among the medicinal dispensaries," Neema says. "Growing up there and having passion for the craft, we wanted to start a cannabis brand rooted in providing the kind of TLC, technique and processing that ensures patients get the best, most exotic, well-grown flowers free of any carcinogenic additives."

Collecting old-school genetics has been key to Cannabiotix's success. Neema and JB's portfolio of strains includes the original Bubble Gum, the original Super Silver Haze and the original Blueberry. "A lot of these classic strains have been lost," Neema says, "but we've been fortunate to hold on to them."

Colorado seemed the obvious place for the pair to put down roots. But after investigating the Nevada application process, they successfully secured cultivation and production licenses in the Silver State in early 2015.

"Man, it's been a whirlwind,"

Neema says. "We've been extremely busy and now have over 70 employees, starting out with maybe 10. In a very short timespan—about a year and a half—our company has just kind of exploded. Now we're expanding into outdoor and greenhouse grow ops.

"We take a very plant-science approach. We've probably run over 420 controlled trial-anderror experiments to test out different mediums, nutrients, watering techniques, light sources, light spectrums and different manipulations of the atmosphere. When I talk about plant science, we're paying attention to increasing the plants' metabolic rates to their maximum potential. We tweak and hone our craft. That ultimately translates into bigger, stickier, more crystally buds."

Twenty-two Cannabiotix strains are available at present. Forty Nevada dispensaries carry their strains, and another 50 in California—and in early November, Cannabiotix's concentrates will be released to the marketplace.

This is just the beginning for Cannabiotix—and for Nevada. Neema can barely imagine what the demand for great bud will be like when adult recreational use is a reality. Right now, there's no time to rest.

"Once you commit to the craft and really get wrapped up in it, you're married to it," Neema says. "You can't tell your plants to take a break so you can go on a surf trip to Bali. JB and I haven't taken a single vacation in the last five, six years. We take pride in our brand. Every time people buy an eighth of Cannabiotix, we want them to go, 'Wow! This is some of the best-grown medicine ever!' That's our whole philosophy."

As this issue of *High Times* heads to press, the excitement and the potential specter of disappointment—is on everyone's mind. But Election Day won't stop the momentum. Nevada has embraced the cannabis industry. It's time to cash in. *****





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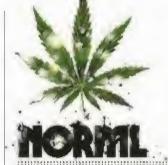
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Way Behind Schedule

The DEA still insists that cannabis has no medical value, thereby maintaining its "flat earth" stance.

Paul Armentano is the deputy director of NORML. Visit norml.org

HIS PAST AUGUST, the US Drug Enforcement Administration rejected a pair of administrative rescheduling petitions that challenged the classification of cannabis as a Schedule I controlled substance with no accepted medical utility. The DEA's decision to maintain the fiction that the plant possesses a "high potential for abuse" and lacks "accepted safety for use... under medical supervision" means that marijuana will continue to be listed in the same category as heroin under the federal Controlled Substances Act.

To those familiar with the DEA's history, this decision was hardly a surprise. Over the last several decades, the agency has rejected four previous rescheduling petitions, including a 1972 petition filed by NORML, and in 1990 it went so far as to set aside a determination by its own administrative-law judge in order to maintain cannabis's criminal status.

According to DEA chief Chuck Rosenberg, the agency's latest refusal was based on its considered opinion that marijuana has not yet been established as a "safe and effective" medicine. But even a cursory review of the available evidence shows how dishonest this claim is. There currently exist over 24,000 peer-reviewed papers specific to cannabis. To put this figure in perspective, a PubMed database search using the keyword "Adderall" yields fewer than 200 scientific papers total.

Further, unlike virtually all pharmaceutical drugs, humans have been using cannabis for therapeutic purposes for thousands of years, thus providing society with ample empirical evidence as to its relative safety and efficacy.

Twenty-six states now authorize the plant's medicinal use by statute, and one in eight Americans identify themselves as current consumers. A just-published study of more than 174 million US adults finds that marijuana users are no more likely than non-users to require healthcare services, including outpatient care or hospitalization. A recent review of FDA-approved clinical studies evaluating the safety and efficacy of herbal cannabis concluded: "Based on evidence currently available the Schedule I classification is not tenable; it is not accurate [to say] that cannabis has no medical value, or that information on safety is lacking."

Unfortunately, this profusion of evidence means little to the DEA. The agency is the hub of pot prohibition in America, and its decision was based on politics, not science. Indeed, scientific evidence has never guided US marijuana policy-if it did, our nation would already have a very

The DEA's latest decision continues the federal *qovernment's* "flat earth" stance when it comes to marijuana.

different set of laws in place. Since the DEA is unwilling to act responsibly, it is incumbent upon Congress to move swiftly and amend cannabis's criminal status in a way that comports with both public and scientific opinion. Ideally, this would mean removing it entirely from

the Controlled Substances Act rather than merely rescheduling it. Reclassifying cannabis as Schedule II, or even as Schedule III, continues to misrepresent the plant's safety relative to substances like methamphetamine (Schedule II), anabolic steroids (Schedule III) or alcohol (unscheduled), and it fails to provide states with the ability to legalize and regulate cannabis free from federal interference.

The DEA's latest decision continues the federal government's "flat earth" stance when it comes to marijuana. Even worse, it willfully ignores the well-established therapeutic properties and enormous medical potential of the plant, and it attempts to hinder marijuana's emerging legal status as the result of informed public opinion.

It is long since time to end the DEA's stranglehold over US marijuana policysomething that only the complete removal of cannabis from the Controlled Substances Act will accomplish. 💥

By Kevin Mahmalji, NORML national outreach coordinator

FREEDOM FIGHTER

Finding Destiny

Priscilla Solis embraces activism as her life's calling.

Inspired by her brother's love for the world's most versatile plant, Priscilla Solis says that her relationship with cannabis started in the garden. Years of continued exposure, education and firsthand accounts of marijuana's medicinal benefits only deepened her respect for the healing herb.

Solis moved from Texas to Colorado in 2012 to attend college-and to take advantage of the Rocky Mountain State's progressive pot laws. Although she'd always supported legalization, she never really considered herself a marijuana activist.

All that changed in 2016, when Priscilla participated in the state's Democratic convention in Denver and caucused for Senator Bernie Sanders. She also attended her first petition-circulator training session for the Responsible Use Denver



initiative campaign. By this point, Priscilla's activism seed had truly sprouted. She sought out volunteer opportunities with Denver NORML and the Responsible Use campaign. Uncertain of what she was getting into, Priscilla decided to commit

10 hours a week to volunteering for the campaign. But that guickly grew to more than 40 hours per week as she gathered signatures, trained other volunteers, organized citywide events and oversaw the petition program. Ultimately, she turned her volunteer position into a fulltime job, which resulted in the campaign exceeding expectations.

"It only took 10 years to figure out what I love to do in this journey we call life," Priscilla says. "I guess it's true that no matter which road you take, you'll get there. Grassroots movements accelerate transformation from the bottom up When one person rises, the present can be changed. When we all rise, we collectively change the future."

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What does the future hold for the biggest, most profitable cannabis company in the world? We caught up with Mike Straumietis, founder and chief executive of Advanced Nutrients, to find out.

"The future of cannabis is not what the vast majority of our community thinks it's going to be," says Mike Straumietis, a.k.a. Big Mike. "The future of cannabis will be recombinant, fractionated, and fractionated isolates of cannabinoids and terpenes." He's referring to the step-by-step chemical separation of whole-plant extracts into the hundreds of compounds found in marijuana.

"Think of a 747 airplane," Big Mike explains. "The engines on that plane are the cannabinoids. The flight-control system is the terpenes. The two work hand in hand. And those are the two profiles that every patient should know."

That's because the effects of different cannabis strains vary widely depending on those profiles. Consumers who can identify which cannabinoids and terpenes produce the effects they're looking for will know exactly which cannabis products to buy.

Just as Coca-Cola tastes the same all over the world, people will look for a cannabis brand they can trust to deliver the same effects whether they're in London, New York, Los Angeles or Barcelona. And that brand, in the future, will be Advanced Nutrients. "The only type of product that will be able to deliver the same outcome no matter where in the world you are is a recombinant product," Big Mike says. "It will start with a whole-plant extract, which will encompass the 400-plus compounds in cannabis." Working from there, chemists will be able to build cannabinoid and

JUSAL

Consumers who can identify which cannabinoids and terpenes produce the effects they're looking for will know exactly which cannabis products to buy.

terpene profiles tailored to produce the specific effects a patient seeks. "In the future," Big Mike predicts, "people will be able to go to a DNA ancestry database and put their genetics in there, and you'll be able to make a custom product to deliver to that person based on current genetic information.

"In fact, we can already do that in some things. We know that some people get paranoid when they smoke weed. That's because of the AKG1 pathway, specifically the RS2494732 gene variant." Big Mike believes that in the next seven to 10 years, it will be possible to assess precisely which isolates of the cannabis plant will be most beneficial to individuals based on their DNA profiles.

He is also firm in his belief that the future of cannabis will be in extracts and recombinant products. "The cannabis community was built by growers, and so strains are important to them because they're growers," Mike observes. "Patients, however, are looking for outcomes: They want better sleep, better sex, appetite stimulation, pain relief. Currently, we're not giving them that—we're giving them strains. But they don't care about Super Lemon Haze or what have you. The average person cares about the outcome. Strains will be important for a while, because that's what we grew up on. But the fastest-shrinking part of the marketplace is flower sales; the fastest-growing is edibles and vape pens."

Moving in this direction is a natural step for Advanced Nutrients, Big Mike says. "I've been a grower for 33 years. The time is right." And with an eye toward a bright green future, he has an urgent message for the cannabis community: unite, or we will be overcome. The recent DEA ruling refusing to reschedule marijuana was just buying time for Big Pharma and Big Agriculture to get ready to roll over the cannabis industry, "Big industry is going to come in here," Mike warns. "Our community is fragmented, and we haven't learned to come together. It's great that we're fighters-but not with each other. We have to come together and consolidate. If we don't, there's an old adage that will hold true today as it has for thousands of years: 'Divide and conquer.'"

These are heady days for the cannabis community, especially with the world's biggest manufacturer of cannabis nutrients and supplements determined to become the number-one marijuana brand. Advanced Nutrients has long been at the forefront of the industry, and Big Mike intends to keep it that way, while also working hard to keep the cannabis community blooming. ●

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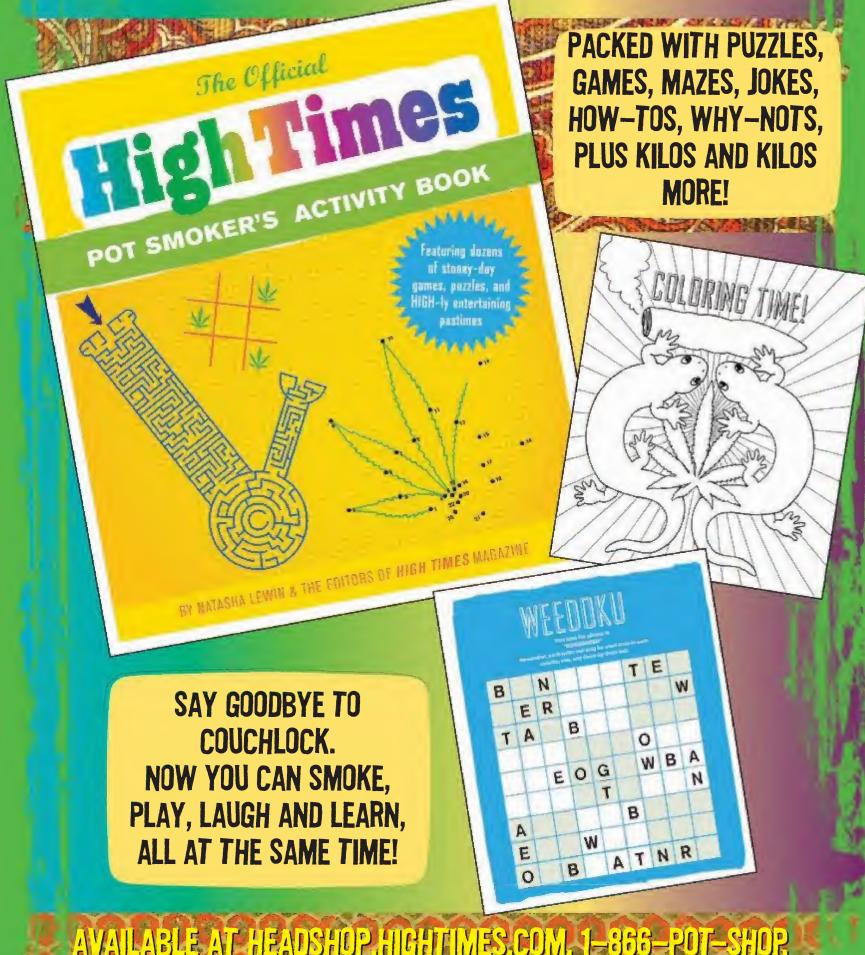
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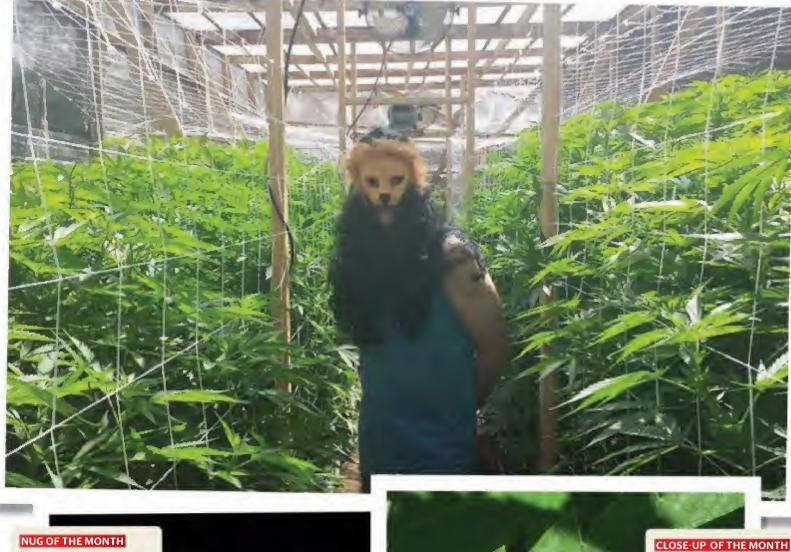
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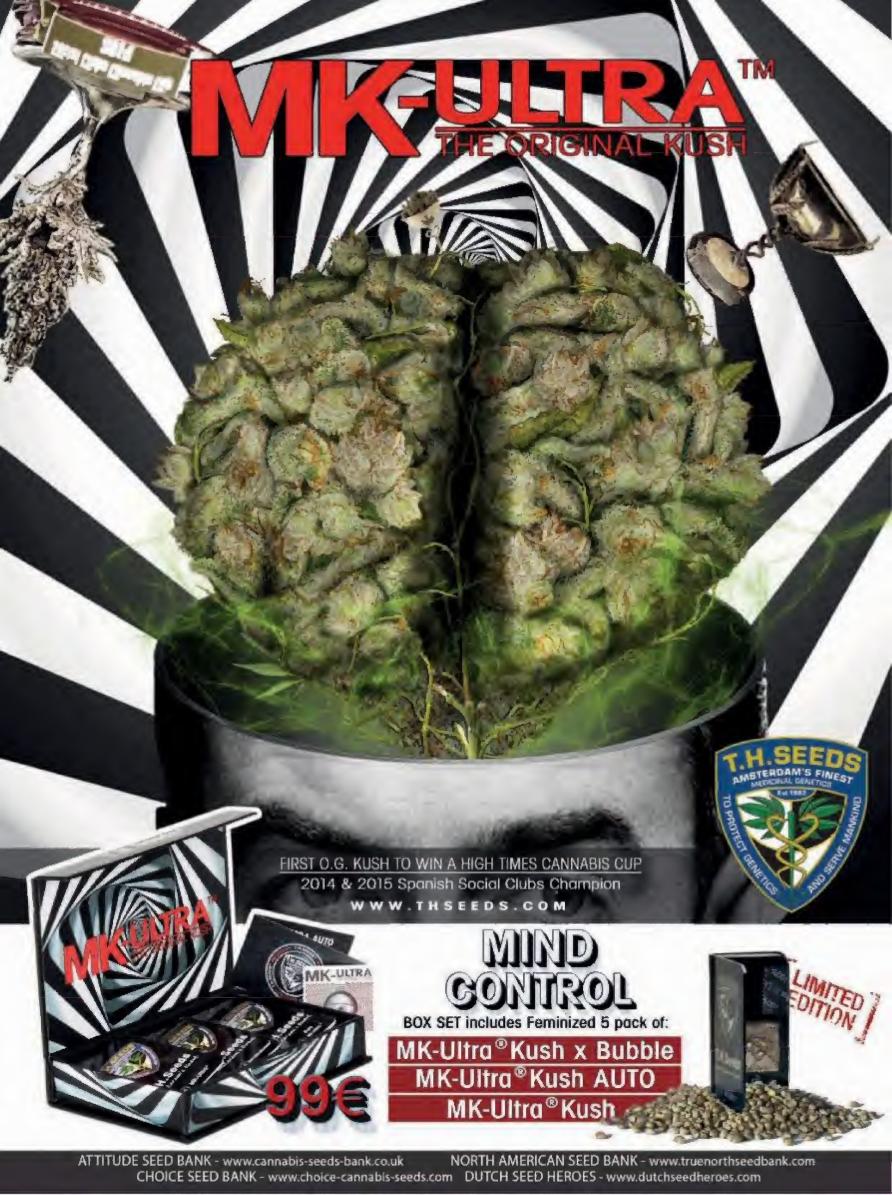
ALTITUDE AND ATTITUDE Migh from the Rockies! At 8000 feet, plants are doing nice, man. Steve B.

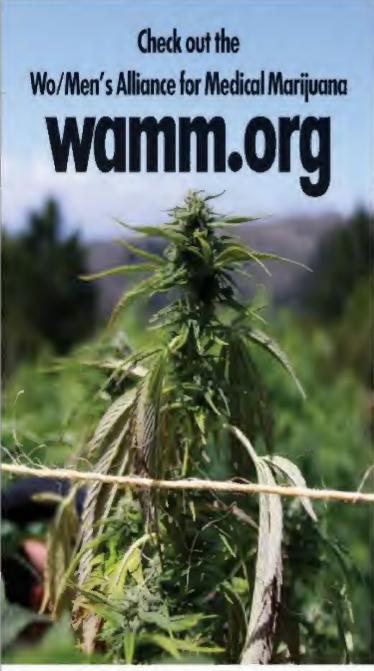




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148 Next Month





How-To Hydro 2017

Hydroponic growing is the gold standard for indoor gardens. In this special issue, we review the three most popular—and easiest—hydro systems available, including a run-down on mediums and nutrients. We also profile the new "hybrid" hydro systems.

Harvesting Huge

If you like reading about massive ganja gardens, then take a tour with HT editor-in-chief Dan Skye as he chronicles the colossal outdoor cannabis crops of Northern California's famed Emerald Triangle.

A Revolution in Growing

Just outside Chicago, a team of experts in cultivation and extraction are setting the standard for large-scale medicinal cannabis production. Senior cultivation editor Danny Danko takes *HT* readers behind the scenes at this awe-inspiring facility.

Nearer, My God, to Thee

Many Christians have found that cannabis enhances their spirituality. Contributor Josiah Hesse investigates the merging of pot and prayer.

🕨 High Art

Visionary artist Alex Grey—whose iconic images blend the spiritual, the sacred and the psychedelic—discusses how ingesting ayahuasca has affected his creative process and influenced his highly evolved philosophy of existence.

Santana Forever!

Over the course of half a century, Carlos Santana has become internationally recognized as rock's top guitarist. A deeply spiritual man, Carlos explains in our feature interview how cannabis is bringing about profound changes in the world. Ask your doctor which of these is **least** harmful to your health.



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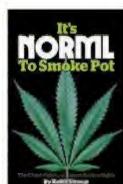
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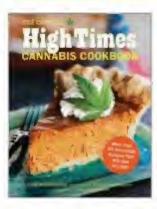


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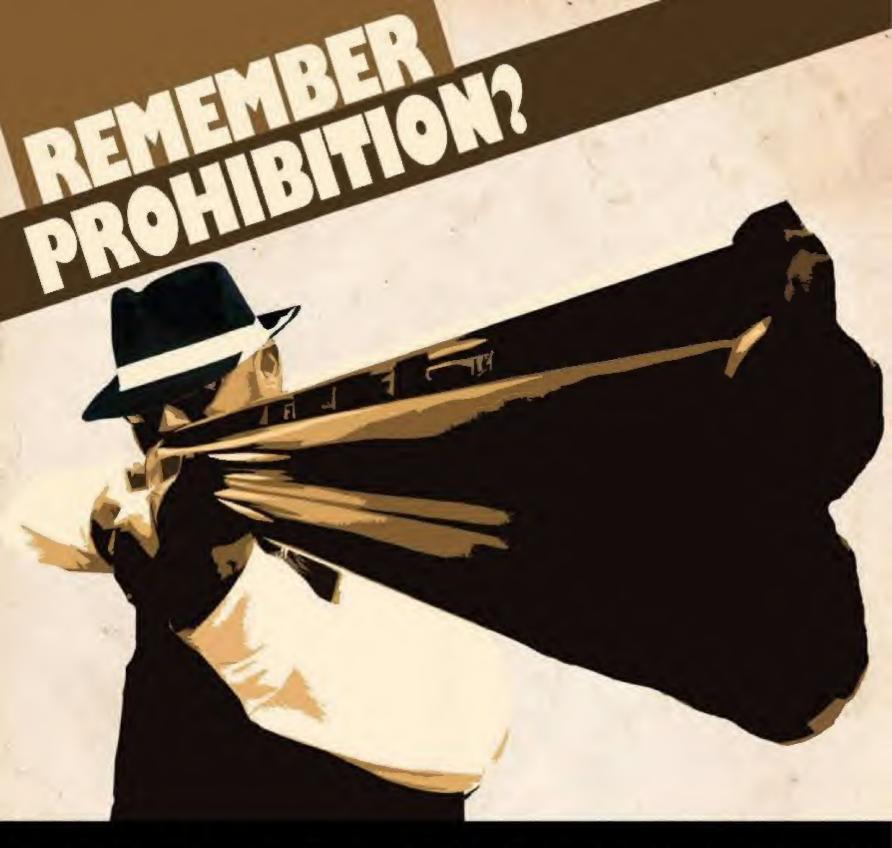
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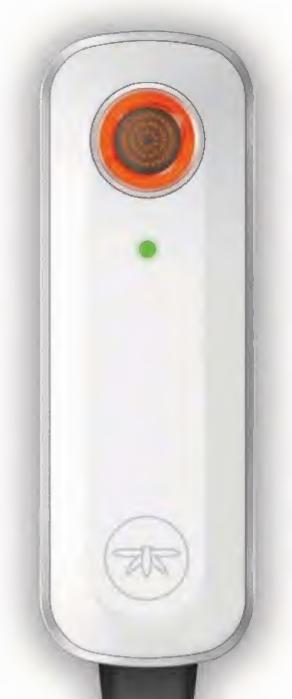
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